



College AND UNIVERSITY Business

Hotpoint Commercial Cooking



— first with the future in

SPEED!

A Major Development in Commercial Cooking!

THERE'S NOTHING FASTER THAN HOTPOINT'S SOURCE OF HEAT. NOT EVEN LIGHT!

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Yes, all benefit from Hotpoint—first with the future in commercial cooking—for Hotpoint produces more at lower cost—with equipment that's lighter but stronger—that takes up ever so much less space.



Everybody's Pointing to

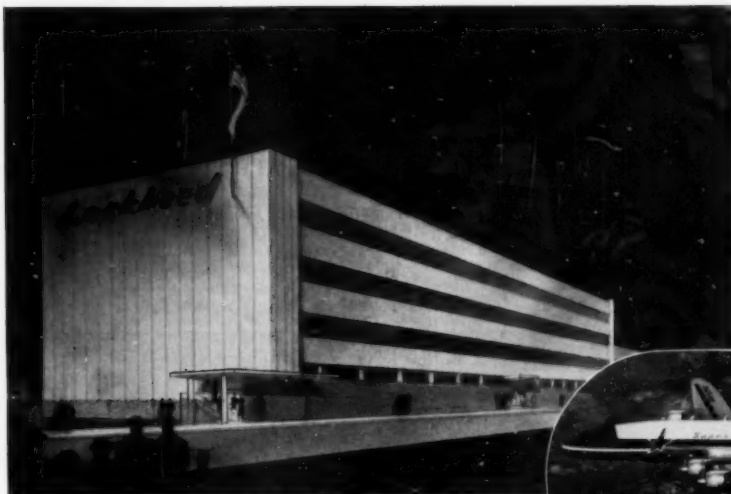


Hotpoint
Hotpoint Inc. A General Electric Affiliates
**ALL-ELECTRIC
Commercial Cooking**

HOTPOINT INC.
Commercial Equipment Dept.
2111 South Saale Ave., Chicago 12, Ill.

Please send literature on how I can save money and increase profits with the famous Hotpoint Custom-Matched Counter line.

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Its interior, providing accommodations for

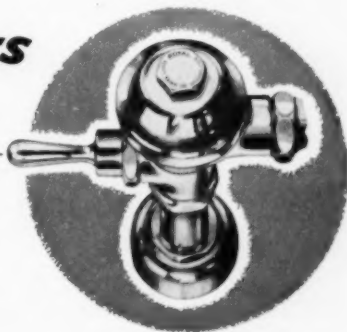
1500 administrative and technical personnel, is functionally streamlined for aeronautical achievements of the highest order. For the building as for the plane, structural methods and materials and all units of equipment were selected on the basis of expert judgment. As are thousands of other notable buildings, this one is completely equipped with SLOAN *Flush VALVES*, famous for efficiency and endurance—more proof of preference that explains why . . .

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NORTHERN HARD MAPLE



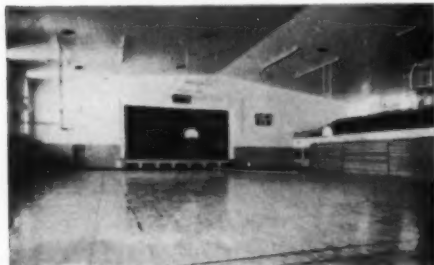
...every one!



University of Florida, Gainesville, Florida. Floor of Northern Hard Maple. Mr. Guy, C. Fulton, Architect to Florida State Board of Control, Gainesville, Florida



Philip Sheridan School, Township of Tonawanda, Kenmore, N.Y. Architects: F. J. and W. A. Kidd, Buffalo.



Pius XI High School, Milwaukee, Wis. Architects: Mark F. Pfaffler Associates, Wauwatosa, Wis.

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May 1952

FEATURE ARTICLES

Put New Life in Those Old Endowments BOARDMAN BUMP	17
422 Colleges Report on Enrollment, Tuition Fees, Board and Room Charges, Salaries and Wages, and Retirement Systems CHARLES W. HOFF	19
Six Authorities Estimate Fall Enrollments	27
A Common-Sense Policy for Academic Budgeting A. LELAND FORREST	29
Dealing Intelligently With the Nonacademic Staff H. R. PATTON	31
Administrative Practices in Selected Audio-Visual Centers SHERWIN G. SWARTOUT	32
Trinity University Cuts High Costs of Building With Lift-Slab Method LEON M. TAYLOR	34
Library: Modest in Cost and Flexible in Arrangement MILTON T. PFLUEGER	38
Focal Point of New Group of Residence Halls Is Harkness Commons ARTHUR D. TROTTERBERG	40
How We Built an Audio-Visual Center R. C. CURREY	43
Faculty Committee Advises Dean on Promotions, Rank and Pay VAN MILLER	45
Government Contracts in Light of Wunderlich Decision T. E. BLACKWELL	48
Business Manager Is in Position to Determine Maintenance Standards ROBERT W. FENIX	49
Students Get Opportunity to "Talk About" at Campus Cafeteria SCOTT WILSON	51

AMONG THE AUTHORS	4
QUESTIONS AND ANSWERS	6
LOOKING FORWARD	18
NEWS OF THE MONTH	54
NAMES IN THE NEWS	70
DIRECTORY OF ASSOCIATIONS	74
CLASSIFIED ADVERTISING	74
WHAT'S NEW	79
	3

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Among the Authors



Charles W. Hoff

CHARLES W. HOFF, vice president of the University of Omaha, reports on page 19 the results of the 1952 statistical survey of colleges, which he supervises annually for the Central Association of College and University Business Officers. Charlie, as he is affectionately called by his business officer colleagues, always is interested in getting the right answer to a question, which may account for his interest in statistical analysis. His other pet project is the University of Omaha summer workshop for college business managers and administrative personnel, which is being scheduled this summer for the third successive year.



A. L. Forrest

A. LELAND FORREST, dean of Nebraska Wesleyan University, suggests on page 29 that budgets should be established as the result of the exercise of common sense rather than arbitrary action. His first academic post was that of instructor in Spanish at Warner College in Texas; he first entered the administrative field of higher education when he became director of student personnel and dean of the college at Taylor University in Upland, Ind., in 1946. He has been in his present position at Nebraska Wesleyan since 1951. Dean Forrest has written extensively for academic and religious publications and has been particularly interested in economic and sociological factors influencing growth of minority groups. He enjoys travel, with his hobby time being taken up with golf and fishing. In quieter moments he enjoys reading history dealing with the Civil War period.



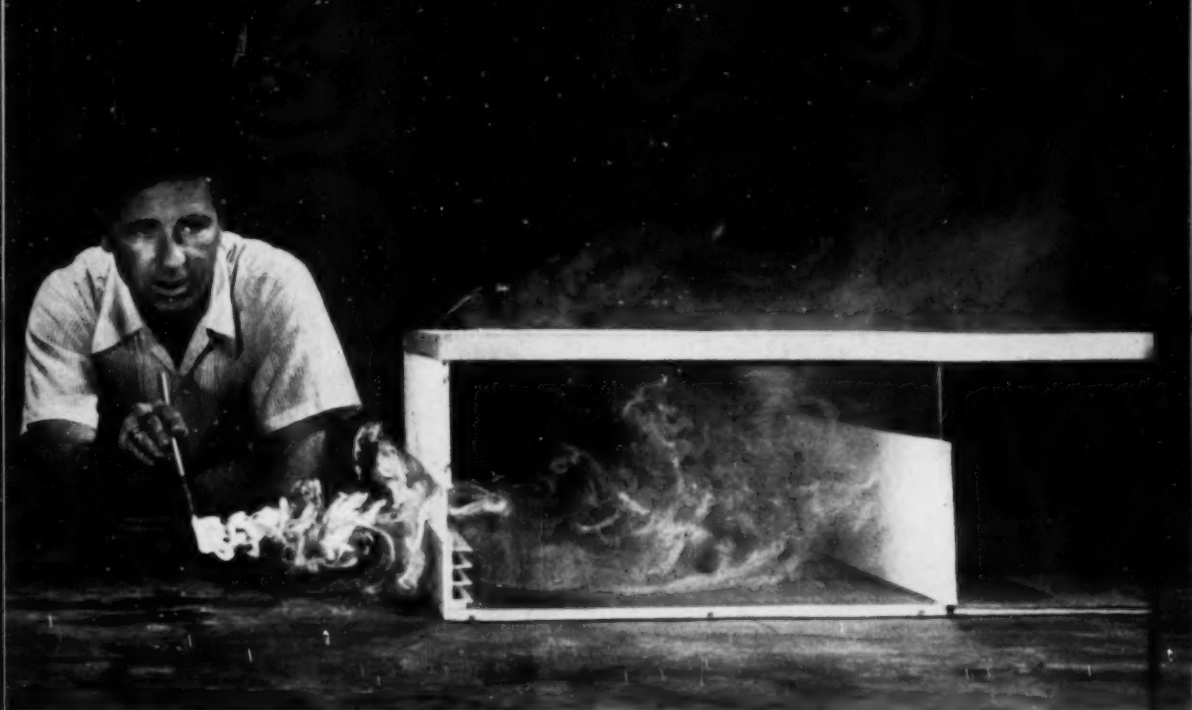
Robert W. Fenix

ROBERT W. FENIX, vice president and business manager of Willamette University, Salem, Ore., outlines on page 49 his point of view in regard to the matter of whether the business manager or the director of physical plant should determine the standard of maintenance on a college campus. He has taken an active part in college business officer groups and also is active in civic and church affairs in Salem. At present, he is president of the Salem Chamber of Commerce and secretary of the Rotary Club. On his own campus he finds time to serve as professor of business administration. Although he has most of his work completed for his Ph.D., he has a prior claim on the title of doctor as he holds the honorary degree of Doctor of Business Administration from the College of the Pacific. When he has any time for relaxation at home, three daughters, aged 7, 9 and 11, are likely to upset that schedule.



Scott Wilson

SCOTT WILSON, principal food service manager at the University of California, Berkeley, reports on page 51 some of the technics employed to develop cooperation from student customers. He first joined the university staff in 1932 and has been housing or feeding students ever since except for a five-year period when Uncle Sam had him feeding army troops at the Los Angeles Staging Area. In his present position he has management responsibility for the central commissary and the kitchens and dining rooms of all university operated cafeterias and residence halls.



Introducing smoke into the schoolroom model to make air flow visible.
Ronald Chatham photo

VENTILATION GOES TO SCHOOL

Texas Engineering Experiment Station tests show what kinds of windows and window detailing provide the best warm-weather ventilation

IF SCHOOLROOM—or plant—ventilation is a problem that concerns you, here's a report from the pages of "Architectural Forum" we know you'll want to read.

In it, you'll see how sun hoods, window types, and outlet wall openings effect the over-all air flow

pattern throughout the room . . . how, with proper design, schoolrooms can be made comfortable—even in hot weather.

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Send me a copy of the "Forum's" report: "Well-Ventilated Schoolrooms."

Name

Address

City Zone

State

Questions and Answers

Intercollegiate Athletics

Question: Who should have charge of the business management of intercollegiate athletics?—A.T., Minn.

ANSWER: The department of intercollegiate athletics should be an academic department of the institution and as such should have a departmental appropriation from the general budget. This appropriation should be adequate to cover all expenditures of the department, which need to be screened and approved by the persons normally charged with this responsibility for all academic departments, namely, the academic dean or a faculty budget committee. Department income should go to the institution.

As the head of the department of athletics, the director of athletics has authority to make disbursements of institutional funds chargeable to his department's budget and within the limits of that budget. However, these disbursements should be made through regular institutional channels, such as purchases through the purchasing department, contracts through the business office, scholarships through the student aid committee, athletic fields maintenance through building and grounds.

If the business affairs of the department of athletics grow in volume to such an extent as to require extra personnel, these persons can work in the department but should be responsible to the head of the specific institutional department whose functions they perform.—T. N. McCLURE, *business manager, Knox College.*

Telephone Service

Question: To what extent should we provide telephone service in residence halls?—A.L.R., Tex.

ANSWER: We are obligated to give our residents adequate but no de luxe telephone service. Do you not have budgetary expense for telephones offset by income within room rentals? This to me is as important as is laundry service and should be provided. We do have exceptions in the houses

that have so-called "free phones." In those cases the minimum guarantee is met by the house social fund for the privilege of unlimited local calls. In that case, the pay phones are used almost entirely to receive incoming calls, and the guarantees are not met.—WILLARD J. BUNTAIN, *director of dormitories, Northwestern University.*

Condensation Problem

Question: How can we stop moisture from condensing on the walls of the rooms in which our swimming pools are housed? Dehumidifiers are out of the question.—R.H.K., Tenn.

ANSWER: At Ohio State University we have not had any particular trouble with condensation on outside walls of the buildings housing our swimming pools.

The control of condensate on the walls of the rooms in which swimming pools are housed should be one of the considerations at the time of the construction of the pools and building. In the buildings housing the swimming pools at Ohio State the area is partly surrounded by heated rooms and the walls that are directly outside are covered with a blanket of heated air in order to keep the moist air from the pools from coming in contact with the cold outside walls. Of course, the ceilings over the pools have a warm space between the ceiling and outside roof of the building.

It would seem to me that the only way to overcome condensation in an existing building would be the installation of sufficient heat on the inside face of the wall to prevent the condensation.—PAUL H. ELLEMAN, *director of physical plant, Ohio State University.*

If you have a question on business or departmental administration that you would like to have answered, send your query to COLLEGE and UNIVERSITY BUSINESS, 919 North Michigan Avenue, Chicago 11, Ill.

Discounts for Employees

Question: What is the general practice, if any, regarding the charging of tuition to members of the faculty or their families while attending the institution at which the faculty member is employed?—J.W.W., Iowa.

ANSWER NO. 1: I have seen no analysis of general university practice in this respect. At the University of Houston, we allow no discount on tuition for employees or their families. I personally think that, where legally permissible, some consideration might well be given. The direct costs of the institution would scarcely be affected and the practice should contribute to the retention of desirable employees.—C. F. McELHINNEY, *vice president, University of Houston.*

ANSWER NO. 2: I have made no official survey in connection with this question, but unofficial interrogation reveals that a fairly common practice is to grant members of the faculty and their families at least one-half remission of tuition fees if they attend a college at which the faculty member is employed.

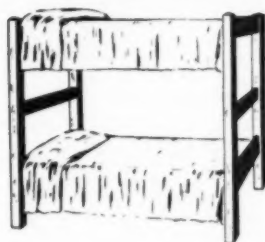
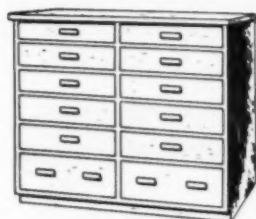
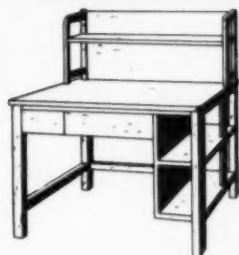
At the present time, Coe College grants the sons and daughters of its faculty and staff who have been employed at least one year full tuition remission. If an adult member of the faculty or staff member's family attends classes, he pays one-half tuition. This applies in our evening college as well as at our summer session.

I think the general practice throughout the country would be nearer the remission of one-half of the tuition returns. The practice is justifiable in my opinion from the standpoint that it is in one sense of the word an increase in the staff member's salary at the particular time that he may have a member of his family attending college. It also is important that it fosters, in some instances, particularly in nonacademic personnel, a desire and ability to obtain a higher education that would probably not otherwise be obtained.—H. H. BROOKS, *acting president, Coe College.*



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Universal's amazing new Mirotex finish is washable and practically scratch- and mar-proof; it withstands ordinary chemicals and temperature extremes. Universal's exclusive Thermoweld plywood (electronically glued lumber cores) eliminates cracking and splitting.

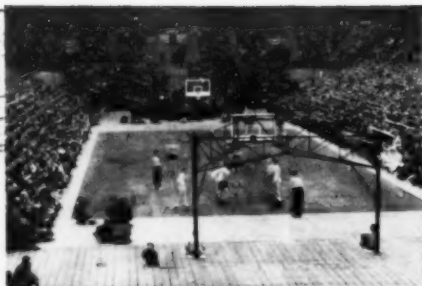
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of
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Seattle, Washington**

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Raleigh, N. C.**

Other eastern teams battled it out in play-offs on this STAR gym finished floor.



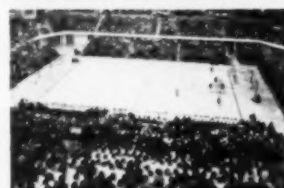
**AT
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Western N.C.A.A. teams praised this floor for quick break action that is permitted by its non-slip Hillyard finish.



**AT
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COLLEGE
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GYM FINISH**

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BASKETBALL COACHES**

in recognition of his many contributions to the progress of the great game of basketball.



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Acousti-Celotex Tile is quickly installed at moderate cost. Needs no special maintenance. Two coats of tough finish, bonded under pressure of a hot knurling iron, give it a surface of superior washability. Can be washed *repeatedly* and painted *repeatedly* without impairing its sound-absorbing efficiency.

GET A FREE ANALYSIS of the acoustical and noise problems in your school without obligation. Write now for the name of your local distributor of Acousti-Celotex products. You will also receive a free booklet, "Sound Conditioning for Schools and Colleges." The Celotex Corporation, Dept. T-52, 120 S. La Salle St., Chicago 3, Ill. In Canada, Dominion Sound Equipments, Ltd., Montreal, Que.

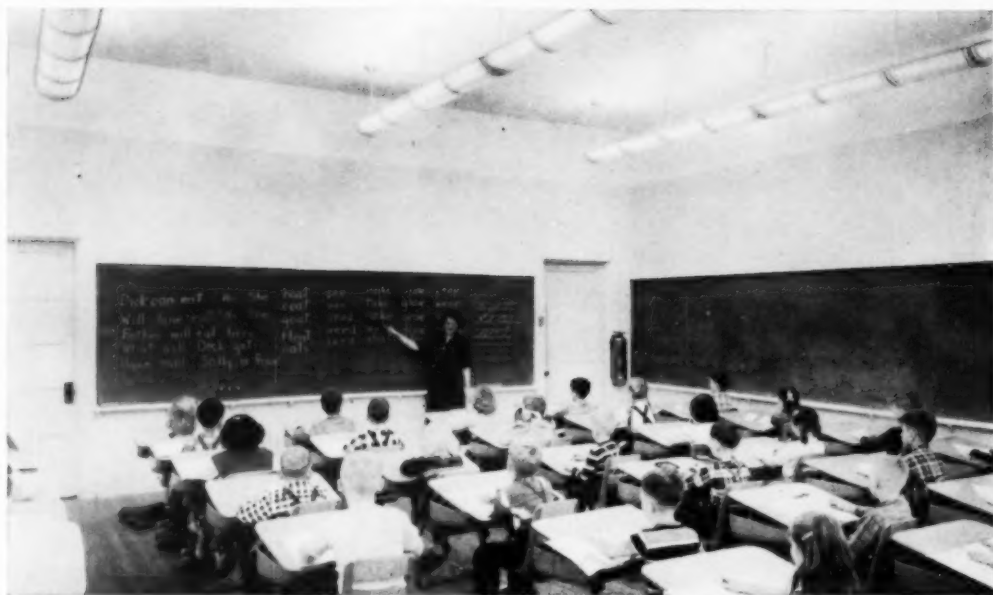
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Another "Co-ordinated Classroom"



Elementary School, Hampton Township, Pittsburgh, Pa.

with *Wakefield* Luminous-Indirect STARS



The Wakefield STAR
luminous-indirect
fluorescent

The Wakefield
COMMODORE
luminous-indirect
incandescent



In this Hampton Township School classroom such basic elements as desks, daylight, artificial light, floor, paint and chalkboards are controlled to produce a "Co-ordinated Classroom". Note that the artificial illumination is provided by luminous-indirect equipment. This is important. It is important because only luminous-indirect luminaires, whether fluorescent or incandescent, are capable of distributing light in accordance with "Co-ordinated Classroom" principles.

Chosen for this classroom was the Wakefield Star, a fluorescent unit with a Plaskon reflector which puts 90% of the light on the ceiling, making the ceiling seemingly the principal source.

Light is thus distributed uniformly throughout the room, and is free from shadows, sharp brightness contrasts and reflected glare from task or adjacent surfaces. No direct glare is presented to the child either, since the reflector conceals the lamps and is itself only about as bright as the ceiling above it.

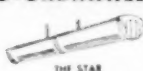
More and more educators, architects and illuminating engineers are recognizing that luminous-indirect lighting equipment is basic to the "Co-ordinated Classroom". For a comprehensive booklet, "Supplementary Lighting for the Co-ordinated Classroom", write to The F. W. Wakefield Brass Company, Vermilion, Ohio.

Wakefield Over-ALL Lighting

BASIC FOR CO-ORDINATED CLASSROOMS



THE COMMODORE



THE STAR



THE WAKEFIELD CEILING



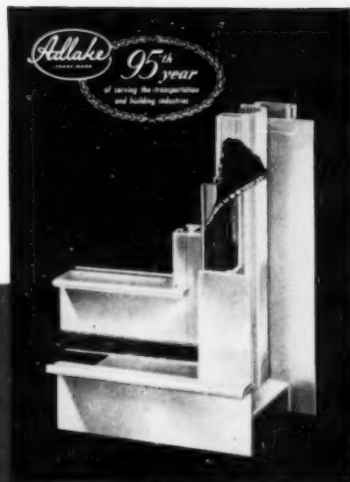
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Adlake

aluminum windows

offer these two
weather-protection
features:

1. woven pile
weather stripping
and
2. exclusive
serrated guides



When you install **ADLAKE** Aluminum Windows, you can count on a perfect weather seal. Wind, rain and cold drafts are baffled by **ADLAKE**'s exclusive combination of snug woven-pile weather stripping and patented serrated guides —and this protection, together with **ADLAKE**'s famous finger-tip control, will last through the entire life of the building!

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ADLAKE ALUMINUM WINDOWS GIVE YOU ALL THESE "PLUS" FEATURES, TOO:

Minimum Air Infiltration • Finger-tip Control • No Warp, Rot, Rattle or Stick • Ease of Installation • No Painting or Maintenance

THE Adams & Westlake COMPANY

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"The modern university ...is a factory of new knowledge"

—T. H. Huxley



Huxley was right in more ways than one. Not only does the modern university "manufacture" a "product"—perhaps the most precious product in the world—but also, like a factory, it includes a tremendously complicated physical plant.

Naturally it's sound common sense to choose for your buildings equipment that will make your job easier. Crane valves, fittings and fixtures, for example. Crane is the preferred school plumbing for these big reasons:

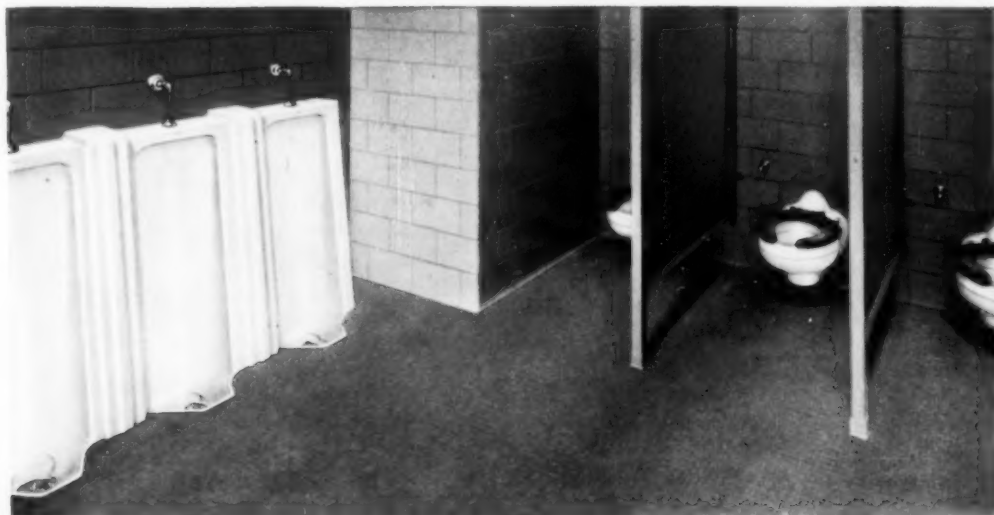
Durability—students for decades to come will use the Crane fixtures you specify today.

Ease of Servicing—exclusive Crane Dial-ese and Magiclose faucets (with the renewable cartridge) mean longer life.

Ease of Maintenance—smooth, glistening surfaces are easy to clean, help stretch maintenance budgets.

Reputation—The Crane reputation for quality has ready acceptance with boards and committees who approve budgets.

If you're planning for the years ahead, plan on Crane. Talk it over with your Architect and Plumbing Contractor, and let them know your preference for Crane.



Crane Sanitor urinals of genuine *Duraclay*—extremely resistant to abrasion, acid, stain and thermal shock—and Crane Lowall closets are built to last.

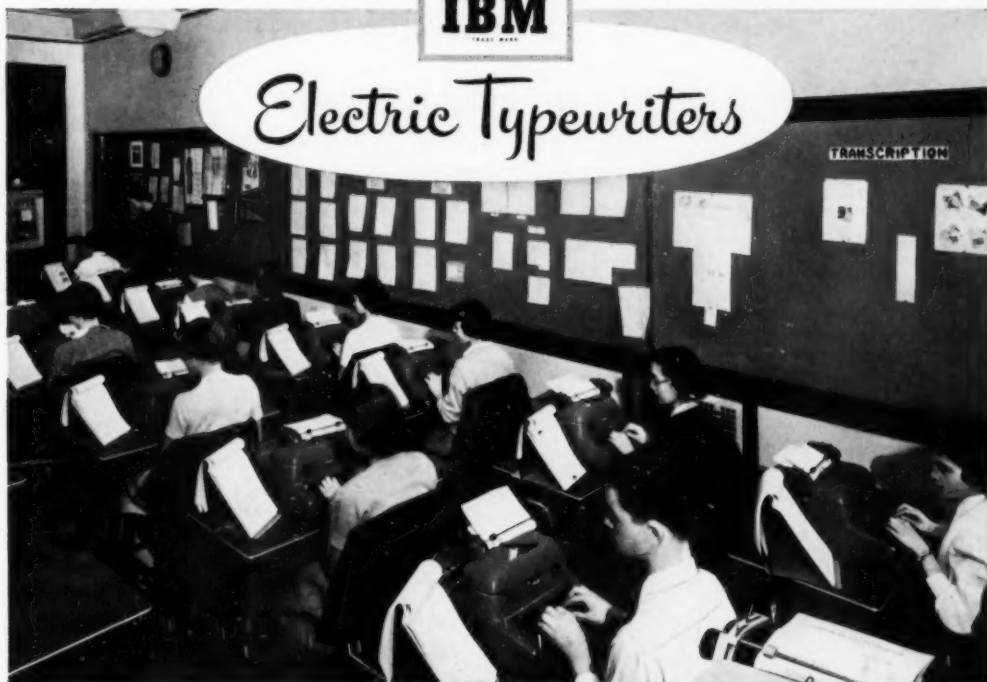
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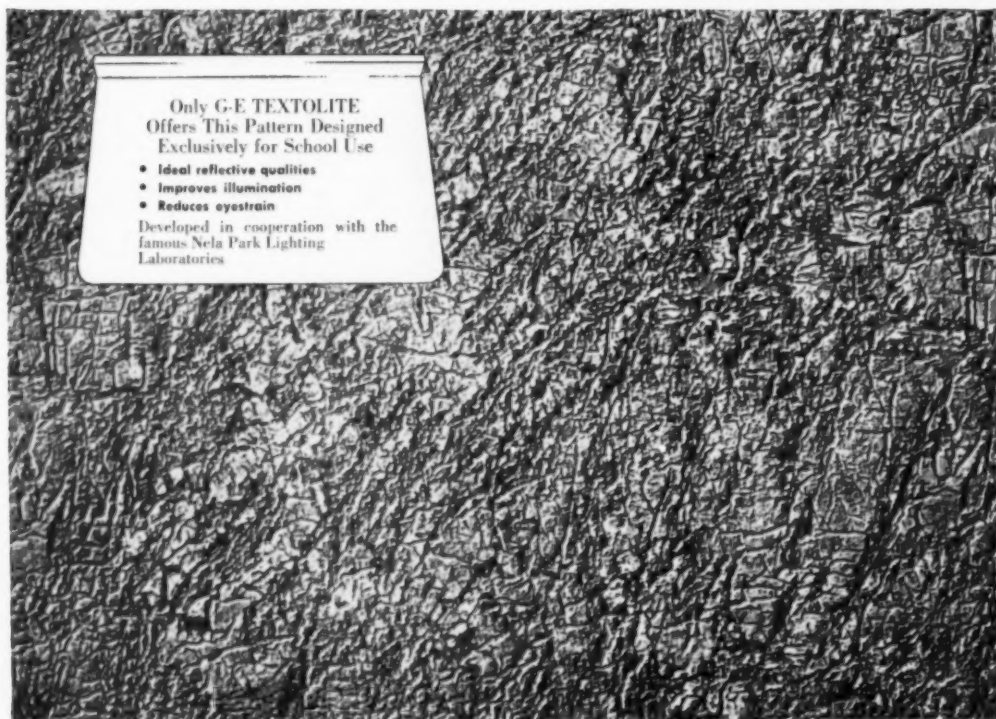
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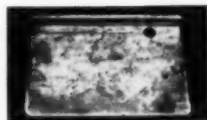


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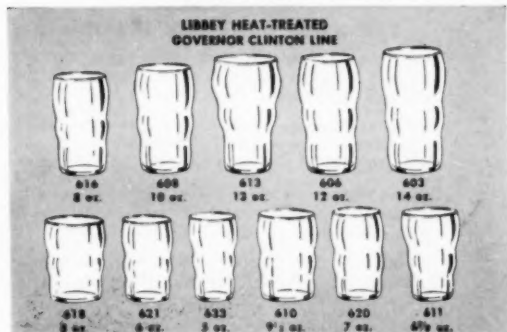
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STRENGTH . . . These Libbey Heat-Treated Tumblers are specially processed to stand up 3-5 times longer than ordinary tumblers under the heaviest service conditions.

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Best for Schools, Colleges and Universities



3 SEAT STYLES
Formed plywood,
All-steel, or
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Metal parts
finished in
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In two styles: for general or under-stage use. Permit easy, convenient storage. Swivel casters—removable handles—ample capacity.

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WORLD'S LEADER IN PUBLIC SEATING

Grand Rapids 7, Mich. • Branch Offices and Distributors in Principal Cities
Manufacturers of School, Auditorium, Theatre, Church, Transportation,
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Newly styled and ruggedly built with triangular steel tubing, American Folding Chairs are famous for the extra comfort of their wider, deeper, shaped seats and wider, deeper, formed back panels. More than 65 years of public-seating experience have gone into these chairs, to make them the finest folding chairs in the world!

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CROSS BRACES are of solid steel, shouldered against inside of legs and securely riveted on outside of legs, resisting load from any direction.

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Steel Threshold permits locking chairs into position at ends of rows, 30" back to back, for three or more rows.

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the vinyl plastic-asbestos floor tile,
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The vivid colors of Johns-Manville Terraflex Flooring have a clarity and warmth that add beauty to any interior—keep their *first day newness* for a lifetime. The wide range of marbleized colors in harmonious and contrasting shades offers unlimited freedom of design.



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Terraflex is resistant to grease and oil, alkaline moisture and mild acid solutions. It is easy to clean and even caustic soaps which permanently damage other types of resilient floorings will not affect Terraflex—it cannot "wash out." Many different decorative inserts are available to add interest and individuality to floor design. Knife-fork and teakettle inserts are shown above. Moisture-resistant, Terraflex is ideal for laying over radiant-heated concrete floors in direct contact with the ground.



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Although Terraflex is extremely resilient, it will outwear other types of decorative floor coverings two to one. With its superior flexibility it conforms to uneven surfaces and absorbs normal floor play. It does not crack, curl, become loose, or brittle, or shrink around the edges. It does not become fuzzy or scratch or lose its sheen from constant wear.

FOR THE BEST there is in flooring—look to Johns-Manville Terraflex.

Send for a free brochure showing the full color line of Johns-Manville Terraflex and Asphalt Tile. Write Johns-Manville, Box 290, New York 16, N. Y.

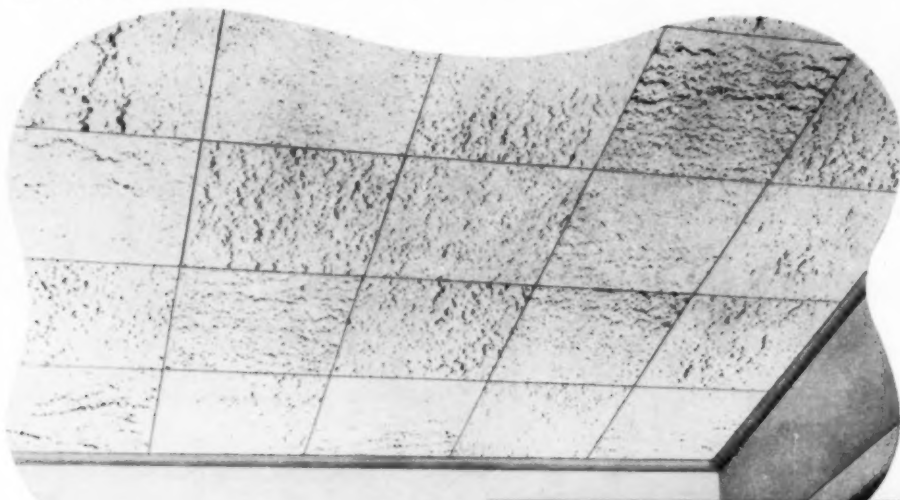


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PERMACOUSTIC* —An Acoustical Unit



***For a non-combustible,
noise-quieting ceiling of
unrivalled architectural appeal***

- **UNUSUAL BEAUTY**—The attractive fissured surface of J-M Permacoustic avoids mechanical monotony. Distinctive and pleasing in appearance, Permacoustic is ideal for hospitals, schools, offices, dining rooms, lobbies, etc.
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PUT NEW LIFE IN THOSE OLD ENDOWMENTS

BOARDMAN BUMP

Vice President
Mount Holyoke College, South Hadley, Mass.



COLLEGE TREASURERS WHO WORK WITH LIVING people, in living institutions, in a living age know that it is their responsibility to inject the quality of life into their endowment investments. But these are times in which inflation is sapping the vitality of invested capital by eroding the purchasing power of its income and is diminishing the utility value of our endowments. It will take our utmost efforts to prevent this institutionally debilitating process from producing a major shrinkage in the value of our capital. Our continuing task is clearly defined: to put more life in our endowments today; to make them more useful and more vigorous, and to lengthen their life span. To accomplish this we must be equipped with both an appropriate investment philosophy and strong professional skills.

An appropriate investment philosophy is, in my opinion, the cornerstone on which successful institutional investment experience is based. In formulating such a philosophy we should have faith and confidence in the future of capitalism. We should judge investment values by today's facts, not tomorrow's guesses, and distinguish between living capital embodying reality and dream capital born of imagination. We should expect and allow our thinking to adjust to changing circumstances. Finally, it is my firm belief that we should hold to an investment philosophy that places primary emphasis on obtaining continuous maximum income from our investments. For it cannot be denied that the end measure of truly successful endowment investment is to be found in the amount of income that can be steadily earned over a long period of time. Neither principal nor purchasing power will vanish when investments are made to produce continuous maximum income. Income producing capital is living capital.

Second in importance to a philosophy are the professional skills that we must bring to bear on the selection, diversification and continuous supervision of our investments. Professional skills are possessed only by those who have had experience in the specialized field of investments and who are competent to manage security portfolios in a constantly changing economy; by those who are not wedded in their thinking to historical, mathematical or superficial invest-

ment theories, and by men who can judge the worth of other men managing the companies in which investments are made. We need professional skills to appraise the vitality of investments and through the exercise of reason and good judgment make successful investment decisions. Life can be put in old endowments, but only by persons who interpret investments in terms of people and the contemporary society of which they are a part.

We may find it useful, by asking a few questions, to focus our attention on how we are putting life into the capital funds entrusted to our care. Is our investment program based on a clearly defined long-range investment philosophy? Is it, for example, directed to the production of the maximum continuous income obtainable? Is our investment vision obscured by formula-type thinking of any nature? Will our investment philosophy encourage timely and prudent responses to the changing world in which we live? Are all available professional skills employed in the selection of our investments? Are those investments properly diversified and supervised? Our answers should reveal strength of which we may be proud or weakness which we should correct.

Those who may seek to remedy a lack of professional investment management may turn for help to banks, private investment counselors or mutual investment companies. The value of the services to be obtained from any one of these three agencies can be determined only after careful investigation. Among the many investment companies, for example, some may be found whose conservatism, reputation and record warrant their use by trustees of institutional capital. In particular, certain seasoned balanced funds of the open-end type (*i.e.* those investing in both fixed-income and equity-type securities) operate in accordance with investment philosophies and employ the professional skills referred to here. But before a mutual investment company or bank or individual counsel is selected to help, the professional competence of the adviser should first be adjudged the best obtainable. Competition normally will guarantee that the cost of the service will be reasonable. Today, all funds, large or small, can benefit from qualified professional investment counsel.

Looking Forward

Bureaucracy Can Be Dangerous, Too

MUCH HAS BEEN WRITTEN IN RECENT YEARS REGARDING the duplication and waste in many federal government bureaus. Two recent events have revealed that bureaucracy can be dangerous, also.

The first of these relates to the operation of the Veterans Administration. No opportunity is presented for a review by the courts of the land when a conflict arises between the V.A. and a contracting institution relative to an interpretation of contract procedures. The V.A. administrator, according to V.A. regulations, is the final authority in regard to the operations of the agency that he heads. He serves as both administrator and judge. A recent Congressional committee, headed by Rep. Olin E. Teague of Texas, sharply criticized this practice by stating that "the finality of authority enjoyed by the administrator of veterans affairs is contrary to the established policies of our government." It is hoped that currently proposed legislation in Congress will correct this glaring deficiency in constitutional procedures.

Another threat has been the recent action by the Bureau of Reclamation in refusing payment on a contractor's expenses involved in a construction project. The case of *U.S. vs. Wunderlich*, reported in more detail on page 48 of this issue, is indicative of the hazards that a college or university may face in research contracts if there is no opportunity for solving a controversy in a court of law. As Justice William O. Douglas of the U.S. Supreme Court stated in dissenting against the majority opinion, which sustained the federal agency: "Law has reached its finest moments when it has freed man from the unlimited discretion of some ruler, some civil or military official, some bureaucrat. Where discretion is absolute, man has always suffered. . . ." Mr. Justice Jackson also filed a dissenting opinion in the *Wunderlich* case, stating that "Granted that these contracts are legal, it should not follow that one who takes a public contract puts himself wholly in the power of the contracting officers and department heads. . . I still believe one should be allowed to have a judicial hearing before his business can be destroyed by administrative action."

If these two situations are representative of contractual relationships with governmental agencies, it is becoming apparent that federal contracts are very much of a "one-way street." Is it any wonder that

colleges are beginning to refuse research contracts offered by federal agencies? Contracts, without the opportunity of judicial review, are a mockery.

Corporate Financing

DURING RECENT MONTHS ARTICULATE LEADERSHIP on behalf of a corporate financing of higher education has been increasing. Concurrent with this awakening has been the organization of various groups of colleges to establish a unified approach in soliciting funds for operation.

In adopting a Community Chest type of organization, the colleges are simplifying the problem for receipt of corporate donations. A corporation can give a substantial gift to the group without necessarily exposing itself to solicitation by the individual colleges. The colleges also are in a position to urge that those who comprise the membership of the group maintain a satisfactory standard of quality in academic performance and in business operations. This will be a good thing. Some corporations may withhold grants to the group until some of the "weak sisters" show concrete evidence of improvement.

Private colleges and universities have been most active in urging the active support of corporate financing. Not eligible for tax support and zealously preserving its independence through private support, the private college has discovered that fund solicitation of individuals is an increasingly difficult effort and that something must be done to supplement individual efforts.

Actually, much of the initiative in behalf of corporate financing has come from business itself. Two leaders first to urge such interest by corporations in behalf of higher education were Frank W. Abrams, president of Standard Oil of New Jersey, and Laird Bell, prominent Chicago attorney and member of three college boards. More recent protagonists in behalf of corporate financing of higher education include Alfred P. Sloan Jr. of General Motors, Irving S. Olds of U.S. Steel, and Beardsley Ruml of R. H. Macy & Co., Inc.

Corporate financing of higher education is slowly becoming a reality in some areas. With this development colleges must continue to maintain an alert vigil to preserve their academic integrity. Colleges exist to educate, not to propagandize; there will be some who will want it otherwise. Academic freedom cannot be put on the auction block for sale to the highest bidder.

422 COLLEGES REPORT

ON: ● ENROLLMENT

- TUITION FEE TRENDS
- TUITION DISCOUNT PRACTICES
- BOARD AND ROOM CHARGES
- RESIDENCE HALL FEES
- TRENDS OF SALARIES AND WAGES
- ACADEMIC SALARIES
- ADMINISTRATIVE SALARIES
- OFFICE SALARIES
- WAGES OF PLANT PERSONNEL
- RETIREMENT PLANS

CHARLES W. HOFF

Vice President—Business Management
University of Omaha

THIS REPORT REPRESENTS THE EIGHTH annual survey of college business trends. Only fully accredited, four-year institutions of higher education have been included. Four hundred and twenty-two colleges and universities responded to the 1952 questionnaire, which covered enrollment, tuition fees, board and room charges, salaries and wages, and retirement systems in effect during the second semester of 1951-52.

The great expense involved in gathering statistical data from nearly 500 colleges and universities last year forced the Central Association of College and University Business Officers to curtail the project a bit this spring. No attempt was made to send out repeated requests for reports or to obtain corrected and more adequate reports from institutions that did not fully meet our requirements.

The detailed listing of student fee charges in the various institutions also has been omitted.

We wanted as many schools represented as possible, so held off the deadline until fewer than 10 days remained in which to punch the cards and make our statistical calculations. Eighty-seven other business officers sent their questionnaires too late to be included in this study. The total would have exceeded last year's if these reports had been received two weeks earlier.

These 422 institutions had a total full-time college enrollment of 778,791 during the first semester, and 729,164, or a decrease of 49,627 (6.3 per cent), during the second semester of this

Table 1—TOTAL 1951-52 ENROLLMENT IN 422 COLLEGES AND UNIVERSITIES represented in this report

	STATE UNIVER- SITIES	STATE TEACHERS COLLEGES	MUNIC- IPAL UNIV.	PRIVATE AND ENDOWED	TOTAL
No. of institutions reporting	70	75	12	265	422
Enrollment 1951-52					
First semester.....	372,542	83,544	40,264	282,441	778,791
Second semester.....	345,272	80,341	36,286	267,265	729,164
Decrease.....	27,270	3,203	3,978	15,176	49,627
% Decrease.....	7.3%	3.8%	9.8%	5.3%	6.3%
Second semester 50-51	385,252	87,831	41,003	292,947	806,433
Less 2d semester 51-52	345,272	80,341	36,286	267,265	729,164
Decrease.....	39,980	6,890	4,717	25,682	77,269
% Decrease.....	10.3%	7.8%	11.5%	8.7%	9.5%
Enrollment Anticipated					
First semester 1952-53	349,756	81,258	35,991	268,289	735,294
No. under 1st semester 1951-52.....	22,786	2,286	4,273	14,152	43,497
Anticipated % drop..	6.1%	2.7%	10.6%	5%	5.5%
No. over 2d semester 1951-52.....	4,484	917	295*	1,024	6,130
Anticipated % increase	1.2%	1.1%	0.8%*	0.4%	0.8%

*Anticipated decrease.

Presented at the annual meeting of the Central Association of College and University Business Officers, April 1952.

Table 2—STUDENT FEE TRENDS IN PAST DECADE AND ANTICIPATED INCREASES, 1952-53

	STATE UNIVER- SITIES	STATE TEACHERS COLLEGES	MUNIC- IPAL UNIV.	PRIVATE AND ENDOWED	ALL COLL. & UNIV.
No. higher in 1951-52 than 1941-42.....	56	45	9	127	237
Lowest % increase....	8	10	8	7	7
Highest % increase....	104	489	220	316	489
Median % increase....	45	40	50	67	50
Average % increase ^a ..	47	84	70	61	66
No. anticipating higher fees in 1952-53 than 1951-52.....	14	4	3	96	117
Lowest % increase....	3	10	3	2	2
Highest % increase....	50	43	80	50	80
Median % increase....	15	17	18	10	10
Average % increase ^a ..	17	22	66	13	14
NONRESIDENT FEES IN TAX SUPPORTED SCHOOLS					
No. higher 1951-52 than 1940-41.....	53	35	8	96	96
Lowest % increase....	8	12	20	8	8
Highest % increase....	800	457	511	800	800
Median % increase....	75	100	143	88	88
Average % increase ^a ..	132	55	42	76	76

^aArithmetic average of medians reported.

year. This second semester enrollment represents a decrease of 77,269 from the second semester of 1950-51, or 9.5 per cent, in these colleges. The schools expect the enrollment of the first semester in 1952-53 to be 0.8 per cent above this semester's enrollment.

STUDENT FEES

Only 237 schools of the 422 reporting indicated an increase of fees during the past decade. Last year's reports lead us to believe that more than this number have adjusted their tuition upward, although a slightly different period was covered at that time.

The increases range from 7 per cent to 489 per cent, but the median is 50 per cent and the arithmetical average is 66 per cent. Last year teachers colleges, with 53 per cent, showed almost the smallest average increase of any group. This year they show the largest average increase for the 10 year period, or 84 per cent.

All colleges have averaged 66 per cent increase since 1941-42. State universities, however, have increased their fees by only 47 per cent.

One hundred and seventeen colleges and universities are planning to raise their fees before 1952-53, for an average hike of 14 per cent. Fourteen of these are state universities for an average of 17 per cent; four teachers col-

leges, 22 per cent; three municipal universities, 66 per cent, and 96 private schools for an average increase of 13 per cent.

NONRESIDENT FEES

According to the 96 colleges and universities reporting on this subject,

nonresident fees in tax supported institutions of higher education have increased 76 per cent during the last 10 years. Fifty-three state universities have raised their out-of-state "equalization" fees by 132 per cent; 35 state teachers colleges, 55 per cent, and 8 municipal universities, 42 per cent. Only four state universities and two municipal universities that responded to the questionnaire plan to make another increase in 1952-53.

TUITION DISCOUNTS

Many requests have come to the association asking information about the practice of giving discounts to various special interest groups of students. These questions do not pertain to the usual scholarship awards or grants-in-aid for special ability and demonstrated need. (Neither do they apply to athletes!)

Table 3 shows certain practices that are being followed. Two hundred institutions give average discounts of 84 per cent to their own faculty and other employees. Most schools seem to give full tuition grants to employees.

The practice is more varied for the children of employees. No state teachers colleges report this practice. Only six state universities are granting this privilege, for an average discount of 72 per cent. Four municipal universities grant an average 62 per cent discount to offspring of employees. One hundred and seventy-five private

Table 3—TUITION DISCOUNTS FOR SPECIAL STUDENT GROUPS

	STATE UNIVER- SITIES	STATE TEACHERS COLLEGES	MUNIC- IPAL UNIV.	PRIVATE AND ENDOWED	TOTAL
No. who give discounts to: Faculty and Employees..	21	7	6	166	200
Lowest discount.....	25%	50%	50%	10%	10%
Highest discount.....	100%	100%	100%	100%	100%
Median discount.....	100%	100%	100%	100%	100%
Average discount....	83%	89%	87%	84%	84%
Children of Employees..	6	0	4	175	185
Lowest discount.....	33%	.....	50%	15%	15%
Highest discount....	100%	.....	100%	100%	100%
Median discount....	76%	.....	50%	67%	60%
Average discount....	72%	.....	62%	63%	66%
Children of Ministers...	2	0	0	111	113
Lowest discount.....	46%	.....	.....	10%	10%
Highest discount....	100%	.....	.....	100%	100%
Median discount....	.....	.....	.....	33%	33%
Average discount....	73%	.....	.....	36%	37%
Other Special Groups..	8	5	2	92	107
Lowest discount.....	33%	75%	100%	5%	5%
Highest discount....	100%	100%	100%	100%	100%
Median discount....	100%	100%	100%	45%	50%
Average discount....	81%	90%	100%	44%	50%

schools grant an average discount of 63 per cent.

Children of ministers are not given any discounts by the state teachers colleges or by any of the municipal universities reporting. Two state universities and 111 private colleges make such grants. The latter offer an average discount of 36 per cent.

Several other groups get special treatment in various parts of the country. An example is the case of one eastern school that grants full remission of tuition to any Indian child born within the state. Ninety-two private colleges grant miscellaneous discounts averaging 44 per cent each. Many of these are to various religious groups.

Offering discounts to special groups are only eight state universities (81 per cent discount), five state teachers colleges (90 per cent average), and two municipal universities (100 per cent). This would make an interesting area for further study.

RESIDENCE HALLS

Table 5 indicates the wide range of rates in effect at various colleges and universities throughout the country, for both room and food services. Monthly rates in 386 schools of all types range from \$2.50 to \$95 per month for room only. This is for single rooms. The median rate, however, is \$18 per month and the average rate for a single room is \$20.93. Municipal universities top the four types of schools with an average of \$27.70 per month; state teachers colleges are at the bottom with \$11.77.

If students are willing to "double up," each pays a national average of \$17.17, although municipal universities drop the price to \$15 and teachers colleges hold the low spot with \$11.77.

FOOD SERVICES

Food rates throughout the country seem to have been fairly well equalized. Although the spread from \$27 per month low to \$75 high appears to be a wide range, the median charge in all types of schools ranges only from \$35 per month to \$43. The true average in state universities is \$41.46 per month; state teachers colleges, \$34.63; municipal universities, \$43; private and endowed, \$41.95, and in all types, \$40.18.

SALARY INCREASES IN DECADE

Tax Foundation, Incorporated, points out in a recent report that a family man who earned \$3000 in

Table 4—TRENDS OF CHARGES FOR ROOM AND BOARD DURING THE PAST DECADE

	STATE UNIVER- SITIES	STATE TEACHERS COLLEGES	MUNIC- IPAL UNIV.	PRIVATE AND ENDOWED	TOTAL
Number of institutions reporting.....	64	48	3	190	305
ROOM CHARGES					
No. higher 1951-52 than 1941-42	64	40	3	190	297
Lowest % increase.....	3	3	33	4	3
Highest % increase.....	233	675	90	250	675
Median % increase.....	60	33	60	50	50
Average % increase.....	64	70	62	56	60
No. higher 1951-52 than 1946-47	58	31	3	161	253
Lowest % increase.....	3	5	15	3	3
Highest % increase.....	164	675	45	112	675
Median % increase.....	25	25	30	25	25
Average % increase.....	33	55	30	32	35
No. higher 1951-52 than 1950-51	30	16	...	66	112
Lowest % increase.....	3	5	...	2	2
Highest % increase.....	54	108	...	66	108
Median % increase.....	10	14	...	10	10
Average % increase.....	13	25	...	12	14
BOARD CHARGES					
No. higher 1951-52 than 1941-42	58	48	1	178	285
Lowest % increase.....	8	8	...	9	8
Highest % increase.....	185	232	...	360	360
Median % increase.....	69	60	109	60	67
Average % increase.....	69	68	109	72	72
No. higher 1951-52 than 1946-47	57	44	1	168	270
Lowest % increase.....	7	2	...	6	2
Highest % increase.....	122	140	...	112	140
Median % increase.....	25	25	50	28	25
Average % increase.....	30	30	50	32	31
No. higher 1951-52 than 1950-51	35	29	1	111	176
Lowest % increase.....	4	4	...	1	1
Highest % increase.....	23	66	...	37	66
Median % increase.....	10	7	12	10	10
Average % increase.....	10	13	12	11	11

Table 5—RESIDENCE HALL AND FOOD CHARGES, 1951-52 as reported by 386 colleges and universities

	STATE UNIVER- SITIES	STATE TEACHERS COLLEGES	MUNIC- IPAL UNIV.	PRIVATE AND ENDOWED	TOTAL
ROOM CHARGES ONLY					
Single per month					
Low.....	\$ 3.00	\$ 2.50	\$11.30	\$ 4.00	\$ 2.50
High.....	76.50	42.22	45.00	95.00	95.00
Median.....	22.00	14.00	21.25	17.00	18.00
Average.....	23.00	13.94	27.70	22.12	20.93
Double (monthly charge each)					
Low.....	\$ 2.63	\$ 2.00	\$ 6.30	\$ 4.00	\$ 2.00
High.....	76.50	42.22	36.00	83.33	83.33
Median.....	16.00	10.00	22.00	15.50	15.00
Average.....	17.67	11.77	15.00	16.78	17.17
MEAL CHARGES ONLY					
(3 meals per day)					
Rate per month					
Low.....	\$28.00	\$27.00	\$43.00	\$37.00	\$27.00
High.....	75.00	58.00	43.00	75.00	75.00
Median.....	42.00	35.00	43.00	40.63	40.00
Average.....	41.46	34.63	43.00	41.95	40.18
Number of schools operating student dormitories.....	69	71	7	239	386
Number of schools operating faculty housing.....	51	43	4	168	266
Number of schools operating student union buildings.....	44	34	7	102	187

Table 6—PERCENTAGE INCREASES OF SALARY AND WAGE SCALES IN 373 COLLEGES AND UNIVERSITIES DURING THE PAST DECADE

	(A) FACULTY & ADM. OFFICERS			(B) OFFICE & CLERICAL STAFF			(C) CUSTODIAL & MAINTENANCE		
	1951-52	higher than	Anticipate	1951-52	higher than	Anticipate	1951-52	higher than	Anticipate
			52-53 higher than 1951-52			52-53 higher than 1951-52			52-53 higher than 1951-52
	41-42	50-51	1951-52	41-42	50-51	1951-52	41-42	50-51	1951-52
State Universities (66)									
Lowest % increase.....	25	1	1	30	2	2	20	1	2
Highest % increase.....	142	89	15	115	34	15	233	34	10
Median % increase.....	70	10	6	70	5	5	85	10	5
Average % increase.....	71	10	7	74	10	6	87	10	6
Teachers Colleges (67)									
Lowest % increase.....	7	2	1	7	1	1	7	2	1
Highest % increase.....	194	25	15	200	100	15	150	33	15
Median % increase.....	71	8	5	75	10	6	85	10	6
Average % increase.....	75	8	6	78	11	7	82	9	7
Municipal Universities (10)									
Lowest % increase.....	25	3	5	20	5	5	20	3	5
Highest % increase.....	100	10	10	71	14	10	173	18	10
Median % increase.....	87	8	5	67	8	5	95	9	9
Average % increase.....	69	7	7	69	8	7	87	9	8
Private and Endowed (230)									
Lowest % increase.....	5	1	1	5	2	2	5	2	1
Highest % increase.....	501	30	50	450	33	15	596	30	30
Median % increase.....	53	6	5	57	5	5	70	7	5
Average % increase.....	64	7	7	66	7	6	76	8	6
All Colleges and Universities (373)									
Lowest % increase.....	5	1	1	5	1	1	5	1	1
Highest % increase.....	501	89	50	450	100	15	596	34	30
Median % increase.....	61	8	5	66	8	5	75	9	5
Average % increase.....	69	8	7	69	8	6	72	8	6

1939 needs \$6500 today to maintain the same standard and keep even with rising prices and rising taxes. A \$4000 a year man in 1939 needs \$9000 to keep even.

"Few are aware," says Tax Foundation, "that even if an individual has doubled his income over the last dozen years, high taxes will leave the average wage earner worse off today than when he was earning half as much."

The foregoing examples indicate a salary increase of 116 per cent as a minimum requirement to "keep even" in the last 12 years.

During the period from 1941 through 1952 faculty and administrative salaries have increased 69 per cent, college office and clerical staffs, 69 per cent, and custodial maintenance employees, 72 per cent.

ACADEMIC SALARIES

Institutions were requested to submit all academic salaries (except academic deans) by the amount earned for nine months' service, so we might have comparable figures. Deans and all noninstructional staff members were reported for the full 12 months' service.

State universities show an increase of 71 per cent in faculty salaries during the last 10 years, 10 per cent in the past year, and an anticipated in-

crease of another 7 per cent next year; teachers colleges, 75 per cent, 8 per cent, and 6 per cent; municipal universities, 69 per cent, 7 per cent, and 7 per cent; and private and endowed colleges, 64 per cent increase in fac-

ulty salaries the last 10 years, 7 per cent the past year, and another 7 per cent increase is anticipated in the year ahead.

The median salary for academic deans on duty in state universities for

Table 7—ANNUAL ACADEMIC SALARIES, 1951-52 in 381 colleges and universities

	STATE UNIVER- SITIES	STATE TEACHERS COLLEGES	MUNIC- IPAL UNIV.	PRIVATE AND ENDOWED	TOTAL
Number of institutions reporting on this subject.....	70	71	12	228	381
DEANS (academic 11 mos.)					
Median.....	\$ 8,280	\$ 6,530	\$ 7,530	\$ 5,940	\$ 6,500
Average ^a	8,723	6,704	6,553	5,975	6,989
High.....	17,790	9,556	19,000	17,000	19,000
PROFESSORS (9 months)					
Median.....	5,674	5,200	5,428	4,500	4,954
Average ^a	5,817	5,252	5,654	4,591	5,329
High.....	12,400	7,800	8,564	15,000	15,000
ASSOCIATE PROFESSORS (9 months)					
Median.....	4,891	4,676	4,645	4,000	4,200
Average ^a	4,727	4,578	4,691	4,102	4,525
High.....	8,830	6,360	7,252	8,250	8,830
ASSISTANT PROFESSORS (9 months)					
Median.....	4,116	4,100	3,966	3,520	3,700
Average ^a	4,057	4,098	4,130	3,497	3,946
High.....	6,800	6,008	5,939	7,000	7,000
INSTRUCTORS (9 months)					
Median.....	3,400	3,600	3,400	3,030	3,240
Average ^a	3,417	3,560	3,554	3,179	3,428
High.....	7,600	6,000	6,000	8,605	8,605

^a"Average" is the arithmetic average of the medians of all colleges.

11 or 12 months is \$8280 per year; in state teachers colleges, \$6530; in municipal universities, \$7530; in private and endowed colleges, \$5940. The median for all colleges of all types is \$6500. The average for all is \$6989.

The median salaries of full professors in arts or business administration or education colleges of state universities, on nine months' service, is \$5674; in state teachers colleges, \$5200; in municipal universities, \$5428; in private and endowed schools, \$4500. The median salary for professors in all types of nonprofessional colleges is \$4954. The corresponding arithmetic average is \$5329.

Associate professors are receiving a median salary of \$4891, \$4676, \$4645, and \$4000, respectively, in the types of schools listed above. The median of all types is \$4200 and the average is \$4525 for nine months' service.

The median salary of assistant professors in state universities is \$4116 per year; in state teachers colleges, \$4100; in municipal universities, \$3966, and in private and endowed schools, \$3520 annually. The median for all assistant professors in all colleges is \$3700, and the average is \$3946 per year.

Instructors receive a median salary of \$3400, \$3600, \$3400, and \$3030, respectively. The median for all instructors is \$3240, and the average is \$3428.

ADMINISTRATIVE SALARIES

The executive dean (or academic vice president) receives a median salary of \$9060 in state universities (average \$9554); \$7500 in state teachers colleges (average \$7638); \$7500 in municipal universities (average \$8379), and \$6000 in private schools (average \$6473). The median salary in the entire series is \$7200, and the average of all executive deans' salaries is \$7344.

The median salary for 12 months' service by the chief business officer (or vice president for business management) of state universities is \$8280; for state teachers colleges, \$5496; for municipal universities, \$8840, and for private schools, \$5400. The median of all business officers' salaries is \$5920 per year, and the arithmetic average is \$6452.

The dean of students receives a median salary of \$7000, \$6020, \$7530, and \$5000. The median in all types of colleges is \$5650 and the average is \$5807.

Table 8—ANNUAL ADMINISTRATIVE STAFF SALARIES 1951-52 in 381 colleges and universities

(11 months' service)	STATE UNIVER- SITIES	STATE TEACHERS COLLEGES	MUNIC- IPAL UNIV.	PRIVATE AND ENDOWED	TOTAL
Number of institutions reporting this subject.....	70	71	12	228	381
EXECUTIVE DEAN					
Median.....	\$ 9,060	\$ 7,500	\$ 7,500	\$ 6,000	\$ 7,200
Average ^a	9,554	7,638	8,379	6,473	7,344
High.....	18,550	10,760	12,000	16,000	18,550
CHIEF BUSINESS OFFICER					
Median.....	8,280	5,496	8,840	5,400	5,920
Average ^a	8,731	5,835	8,520	5,844	6,452
High.....	18,000	8,525	12,000	16,000	18,000
DEAN OF STUDENTS					
Median.....	7,000	6,020	7,530	5,000	5,650
Average ^a	7,358	6,302	5,746	5,091	5,807
High.....	15,072	9,384	25,250	11,500	25,250
HEAD LIBRARIAN					
Median.....	6,600	4,950	5,000	3,850	4,482
Average ^a	6,651	5,091	6,084	4,079	4,770
High.....	12,900	8,280	10,278	9,250	12,900
REGISTRAR					
Median.....	6,400	5,100	5,000	3,900	4,500
Average ^a	6,462	5,048	5,519	4,037	4,763
High.....	11,910	7,700	7,812	8,500	11,910
PURCHASING AGENT					
Median.....	5,500	4,740	5,330	4,200	4,900
Average ^a	5,762	4,517	5,096	4,431	4,951
High.....	9,192	6,465	6,600	8,662	9,192
FOODS DIRECTOR					
Median.....	5,200	3,800	4,500	3,400	3,780
Average ^a	5,315	3,890	4,870	3,568	4,028
High.....	9,000	6,400	8,703	8,050	9,000
RESIDENCE HALLS MANAGER					
Median.....	4,740	3,824	6,393	3,000	3,700
Average ^a	4,961	3,835	6,283	3,077	3,867
High.....	8,900	7,600	6,456	6,600	8,900
BOOKSTORE MANAGER					
Median.....	5,000	3,000	4,350	2,900	3,060
Average ^a	4,536	3,112	4,309	2,893	3,355
High.....	6,600	5,280	5,898	7,200	7,200
CHIEF ACCOUNTANT					
Median.....	5,500	3,900	4,420	3,500	3,900
Average ^a	5,573	3,975	4,990	3,707	4,260
High.....	9,960	6,000	8,000	8,100	9,960

^aEach institution has only one person in these positions. Therefore, the average as shown here is the true arithmetical average of the salaries reported.

Head librarians are paid a median salary of \$6600 in state universities; \$4950 in state teachers colleges; \$5000 in municipal universities, and \$3850 in private colleges. The median for all colleges is \$4482, and the average is \$4770.

The registrar whose salary appears at the center point of the series of state university salaries, arranged from low to high, receives \$6400; of state teachers colleges, \$5100; of municipal universities, \$5000, and of private and endowed colleges, \$3900. The median salary of all registrars is \$4500, and the average is \$4763.

The median of all purchasing agents' salaries is \$4900, and the average is

\$4951. Food service directors in all colleges receive a median salary of \$3780, and an average of \$4028; residence hall managers, a median of \$3700 and an average of \$3867; bookstore managers, \$3060 and \$3355; chief accountants, \$3900 median and \$4260 average.

OFFICE AND CLERICAL SALARIES

State universities have increased office salaries 74 per cent during the last 10 years and 10 per cent during the past year, and they plan to increase them another 6 per cent during the year 1952-53. They are now paying administrative assistants a median of \$4110 per year (average \$4299); sec-

retaries, \$2400 and \$2498; clerks, \$2184 and \$2152; stenographers, \$2200 and \$2054.

State teachers colleges show an increase of 78 per cent during the past decade, which includes 11 per cent in 1951-52. They anticipate another 7 per cent raise for office employees in 1952-53. Administrative assistants in state teachers colleges show a median annual salary of \$3600 and an average salary of \$3819; secretaries, \$2400 and \$2639; clerks, \$2260 and \$2246, and stenographers, \$2298 and \$2120.

Municipal universities have increased office salaries an average of 69 per cent in the last 10 years, 8 per cent in 1951-52, and anticipate a 7 per cent increase in 1952-53. This group of institutions pays average salaries of \$3804 to administrative assistants; \$2746 to secretaries; \$2333 to clerks, and \$2343 to stenographers.

Private colleges and universities show an increase of 66 per cent during the present decade and 7 per cent in the year just ended, and they anticipate further increases averaging 6 per cent in 1952-53 for office and clerical staffs. Average salaries of \$3504 are paid by this group to administrative assistants; \$2131 to secretaries; \$1832 to clerks, and \$2100 to stenographers.

CUSTODIAL, MAINTENANCE WAGES

This group of employees has received a higher percentage of increase than

has that in any other area of the educational field. This is understandable, of course. Wages were very low 10 years ago and the workers' living costs have increased by dollars as fast as have those of the full professor. This causes their percentage requirements to show higher.

State universities have raised the wages of their custodial and maintenance staffs an average of 87 per cent, with another 6 per cent due in 1952-53; teachers colleges, 82 per cent, looking to another 7 per cent next year; municipal universities show a median of 95 per cent and an average of 87 per cent, with another 9 per cent coming soon, and private and endowed colleges have given 76 per cent increases. They expect at least a 6 per cent increase next year. All colleges show a median increase of 75 per cent and an average salary increase of 72 per cent in the past decade for custodial and maintenance men.

The median salary for building and grounds superintendents in state universities is \$500 per month; state teachers colleges, \$341; municipal universities, \$500, and private and endowed schools, \$325. The median and average salaries for all types of colleges are \$350 and \$382.

For other workers the median wages are as follows for the four classes of schools; the final spread of figures in each series refers to median and average figures for all types of colleges report-

ing: *Stationary engineers:* \$300; \$285; \$300; \$260; \$286-\$295. *Firemen:* \$248; \$262; \$298; \$200; \$212-\$218. *Painters:* \$266; \$250; \$297; \$230; \$248-\$248. *Carpenters:* \$268; \$249; \$278; \$235; \$250-\$256. *Plumbers:* \$270; \$241; \$280; \$235; \$250-\$259. *Janitors:* \$185; \$190; \$200; \$166; \$175-\$179. *Groundsmen:* \$198; \$213; \$233; \$175; \$185-\$184. *Charwomen:* \$140; \$150; \$145; \$118; \$125-\$131.

RETIREMENT PLANS

Table 11 shows a summary of the data regarding retirement plans in operation at various institutions. Every college and university reported on this subject. Of the total, however, only 360 of the 422 indicate that they have nonfederal retirement plans.

It was impossible to use all of the data submitted because of the misinterpretation of questions. Several persons confused "percentages" for "dollars"; others, "monthly contributions" for "annual contributions." Many others did not understand our question regarding maximum annual contribution by the institution.

By far the greatest number of institutions are still on a 5-5 per cent matching basis for retirement premiums. Some are still making smaller contributions, and an appreciable number have reached or are working toward a 7½-7½ per cent matching formula.

HEALTH AND ACCIDENT INSURANCE

Of the 360 institutions that have retirement systems in operation, 359 of them cover faculty members, but only 245 protect the noninstructional staff. Forty colleges and universities include some type of health insurance with their over-all retirement and insurance program. However, 323 institutions have provisions for pay-roll deductions and payment by the institution to the Blue Cross and Blue Shield plans of 100 per cent of the premium.

FEDERAL SOCIAL SECURITY

Two hundred and eighty-seven colleges and universities have availed themselves of the benefits of federal social security. This represents 68 per cent of the total 422 schools. However, 94 per cent of the private and endowed colleges are participating, and only 20 per cent of the tax supported schools. The faculties in 16 of the 157 public supported schools are thus far able to benefit from social

**Table 9—ANNUAL OFFICE STAFF SALARIES 1951-52
in 381 colleges and universities
Office Employees—Noninstructional**

	STATE UNIVERSITIES	STATE TEACHERS COLLEGES	MUNIC- IPAL UNIV.	PRIVATE AND ENDOWED	TOTAL
Number of institutions reporting.....	70	71	12	228	381
ADMINISTRATIVE ASSISTANTS					
Median.....	\$ 4,110	\$ 3,600	\$ 3,600	\$ 3,002	\$ 3,600
Average.....	4,299	3,819	3,804	3,504	3,857
High.....	9,500	6,400	7,338	8,500	9,500
SECRETARIES					
Median.....	2,400	2,400	2,500	2,195	2,340
Average.....	2,498	2,639	2,746	2,131	2,308
High.....	5,800	4,500	4,953	4,420	5,800
CLERKS					
Median.....	2,184	2,260	2,100	1,805	2,080
Average.....	2,152	2,246	2,333	1,832	1,999
High.....	4,800	4,980	3,851	3,800	4,980
STENOGRAPHERS					
Median.....	2,200	2,298	2,220	1,920	2,100
Average.....	2,054	2,120	2,343	2,100	2,154
High.....	5,592	4,980	3,489	3,885	3,851

*Arithmetical average of the medians reported.

security. Thirty-six tax schools have provided for their noninstructional staff to be included.

SUMMARY

Questionnaires are disconcerting to all college administrators. But they are usually our only means of gathering factual information about practices and results in other institutions, to help us improve our own operations.

This annual report is possible only because of the cooperation of hundreds of our colleagues. It is current (second semester, 1951-52) because of the prompt return of the information requested each year. Four hundred and twenty-two business officers of colleges from 47 states have contributed data for this survey. Many other reports were received too late to be used.

Although the number of colleges and universities included in our report this year is nearly 80 per cent of the 1950-51 total, only 74 per cent of last year's students are represented. This is because several of our largest universities did not get their material to us in time to be included. As a result, this year's report possibly gives a more nearly accurate picture of the small and medium sized colleges than do previous reports.

Tuition fees have increased from 7 per cent to 489 per cent, but the average increase has been 66 per cent during the past decade. More than 100 colleges expect to increase tuition an average of 14 per cent next year. Non-resident equalization fees in tax supported schools have increased from 8 per cent to 800 per cent since 1941-42, with an average hike of 76 per cent throughout the country.

It seems to be rather generally accepted practice for colleges to discount and even excuse all tuition fees for faculty and full-time employees of those schools. In private colleges offspring of these groups are given discounts ranging from 15 to 100 per cent, with the discounts averaging 63 per cent each. Children of ministers are given average discounts of 36 per cent in 111 private institutions. Few tax supported colleges and universities grant such privileges.

Inflation in the cost of living has struck college students, also. Room charges have increased 60 per cent in the last 10 years, and 35 per cent since 1946-47. The average room charge has gone up 14 per cent in the past year. Food cost for students is 72 per cent higher than 10 years ago and 31

**Table 10—MONTHLY EARNINGS OF OPERATING PERSONNEL
FOR 1951-52
in 381 colleges and universities**

	STATE UNIVER- SITIES	STATE TEACHERS COLLEGES	MUNIC- IPAL UNIV.	PRIVATE AND ENDOWED	TOTAL
Number of institutions reporting.....	70	71	12	228	381
BLDG. & GRDS. SUPTS.					
Median.....	\$500	\$341	\$500	\$325	\$350
Average ^a	515	376	553	334	382
High.....	942	621	856	750	942
STATIONARY ENGINEERS					
Median.....	300	285	300	260	286
Average ^a	322	285	309	266	295
High.....	633	431	507	500	633
FIREMEN					
Median.....	248	262	298	200	212
Average ^a	243	225	294	201	218
High.....	425	340	416	325	425
PAINTERS					
Median.....	266	250	297	230	248
Average ^a	248	252	324	231	248
High.....	484	400	429	433	484
CARPENTERS					
Median.....	268	249	278	235	250
Average ^a	282	255	334	242	256
High.....	525	376	476	500	525
PLUMBERS					
Median.....	270	241	280	235	250
Average ^a	288	258	329	235	259
High.....	520	384	468	480	520
JANITORS					
Median.....	185	190	200	166	175
Average ^a	188	187	212	171	179
High.....	375	283	291	368	375
GROUNDSMEN					
Median.....	198	213	233	175	185
Average ^a	196	195	225	174	184
High.....	350	335	327	355	355
CHARWOMEN					
Median.....	140	150	145	118	125
Average ^a	139	143	158	122	131
High.....	237	216	253	285	285

^aArithmetical average of the medians reported.

per cent above the charges of five years ago. In college food centers it is costing 11 per cent more than even one year ago to maintain a satisfactory diet list.

The average rate being charged for single accommodation, for room only, is \$20.93 per month; the double rate is \$17.17 for each person.

Meal charges, for three served meals per day, average \$40.18 per month.

Before salaries are discussed, an explanation should be given of the statistical terminology used in this report. The "average," as used in the accompanying tables, is the arithmetic average of the many "median" figures submitted from the various institutions. The median, as used in these tables, is the midpoint figure, when the

various medians are arranged in a low-to-high series.

Academic salaries of such professional colleges as medicine, dentistry, law, pharmacy and engineering were omitted from this study. A few of the high salaries required by those professional schools could depreciate the statistical value for the small universities and colleges of liberal arts, education and business administration.

One year ago we reported that faculty and administrative salaries had increased 60 per cent since 1940-41. Today we can report that they have gone up 69 per cent in the past decade and that another 7 per cent rise is anticipated next year. Office and clerical employe salaries had been raised 60 per cent from 1940-41 to 1950-51.

**Table 11—RETIREMENT PLANS AS REPORTED BY
422 COLLEGES AND UNIVERSITIES**

	STATE UNIVER- SITIES	STATE TEACHERS COLLEGES	MUNIC- IPAL UNIV.	PRIVATE AND ENDOWED	TOTAL
Number of colleges reporting.....	70	75	12	265	422
Number of colleges having their own retirement plans.....	60	72	12	216	360
Median contributions by employes...	5%	5%	5%	5%	5%
Median contributions by institutions...	7%	5%	5%	5%	5%
Number including faculty.....	60	72	11	216	359
Number not including faculty.....	0	0	1	0	1
Number including noninstructional....	55	65	5	120	245
Number not including noninstructional.	5	7	7	96	115
Plan includes health insurance.....	4	3	1	32	40
Plan does not include health insurance	66	72	11	233	380
Voluntary participation in Blue Cross or Blue Shield with pay-roll withholding 100%.....	51	40	10	222	323
Number of colleges having federal social security coverage.....	17	18	3	249	287
For faculty.....	8	6	2	244	260
Faculty excluded.....	9	12	1	5	27
For noninstructional staff.....	17	16	3	243	279
Noninstructional staff excluded....	0	2	0	6	8
Program dated back to Jan. 1, 1951	15	12	3	215	245

The current survey shows an increase of 69 per cent from 1941-42 to 1951-52. Custodial and maintenance personnel had benefited, in dollars, by 67 per cent in raises. This group has not had as appreciable recognition as have the others during the past year. Today's record shows them 72 per cent ahead of 1941-42.

The median salaries of academic deans has jumped from \$5800 a year ago to \$6500 today; of full professors from \$4705 to \$4954; of associate professors from \$4100 to \$4200; of assistant professors from \$3600 to \$3700; of instructors from \$3000 to \$3240.

The median salary of chief business officers has stepped up from \$5400 in 1946 colleges last year to \$5920 in 381

colleges and universities this year; of librarians from \$4200 to \$4482; of registrars from \$4200 to \$4500; of food service directors from \$3600 to \$3780, and of accountants from \$3750 to \$3900.

Although these median figures are much lower than are most salaries paid in state and municipal universities the difference, in the one-year period, indicates the trend. Details for several of the job classifications may be found in Tables 8, 9 and 10.

The median salary paid to office secretaries last year was \$2151; this year it is \$2340; the median salary of administrative assistants last year was \$3600; it is the same this year. Stenographers' salaries have gone from \$1900 to \$2100.

Wages of the personnel in the operating departments—engineers, firemen, building tradesmen, and janitors—show a fairly consistent \$10 to \$15 per month increase, rather than giving an indication of planned percentage raises. This area should be studied carefully by all administrators.

Most colleges and universities have made some provision for the retirement of faculty members. With inflation now being felt throughout the world, it is evident that careful study must be given to the improvement of these plans to make them come closer to accomplishing their real objectives.

The disheartening part of the picture is that many colleges have not provided any kind of retirement system for the noninstructional staff. Only 245 schools out of 422 indicate specifically that provision has been made, by the school, for the retirement of noninstructional personnel.

So now our government is stepping in with social security to do the job that we have not done satisfactorily. Two hundred and seventy-nine colleges (243 of them private schools) have taken their noninstructional staffs into social security. Two hundred and sixty (244 of them private schools) are including the faculty.

The present federal social security regulation is very discriminatory against the faculties and employees of public institutions of higher education. As it now operates, it is penalizing those who have worked under a forward-looking administration.

"Social security" can be used as a valuable supplement to retirement plans now in operation to make total retirement income more nearly adequate for a comfortable retirement. The trustees of 249 private schools have made this decision. Administrators should study this matter carefully and help the Congress reach an equitable solution.

Preparing the Budget...

... has been an annual headache for many college administrators. Luther H. Foster Jr. of Tuskegee Institute will report in the June issue some of the significant outcomes of his doctoral research on the technics of budget preparation.

Six authorities estimate

FALL ENROLLMENTS

QUESTION: *On the basis of present enrollment, pending legislation, and the current state of international affairs, what is your estimate of total enrollment for higher education in the fall of 1952? What percentage of decrease or increase of enrollment do you predict in comparison with the fall of 1951?*

UNCERTAINTY REGARDING REQUIREMENTS of the armed forces and industry for manpower and regarding the number of veterans who will go to college if new legislation is passed make predicting enrollments for 1952-53 extremely difficult. The only firm fact in this calculation is that the 1952 entering class represents the year in the Thirties with the lowest number of births. Thereafter the potential college population will increase.



Francis H. Horn

Another complication is that complete data for 1951 are not available. U.S. Office of Education figures do not distinguish between part-time and full-time students, and Dr. Raymond Walters' figures (Dr. Walters, president of the University of Cincinnati, has been compiling college enrollment statistics for many years) include only 818 institutions of higher education, 44 per cent of these included by the U.S.O.E. Predictions, therefore, are necessarily rough guesses.

If discharges from the armed services proceed at the figure estimated by the military—nearly 90,000 monthly—in order to maintain the size of the armed forces at approximately their present level, draft calls must be increased and fewer deferments of college students will be allowed. The return of discharged G.I.'s will not offset this drop.

Assuming no major change in the international situation and taking all other factors into account, I expect a slight increase of 2 to 2½ per cent in part-time students for the fall of 1952 and a decrease of approximately 10 per cent in full-time students. In round numbers, I look for about 1,400,000 full-time and 600,000 part-time students. The total of 2,000,000 represents a decrease of 5.5 per cent over the 2,116,440 reported by the Office of Education for last fall.—FRANCIS H. HORN, executive secretary, department of higher education, National Education Association.

ASSUMING A CONTINUATION OF PRESENT CONDITIONS, we estimate that the enrollment in colleges and universities in the fall of 1952 will be between 1,900,000 and 1,950,000. This estimate contemplates a decline of about 9 per cent from the 2,116,000 enrolled in the fall of 1951. Included in the estimate are both full-time and part-time students on the graduate and undergraduate levels. The

figure does not include correspondence or extension students.

We expect the bulk of the drop to be among men students. A very slight drop is anticipated in the number of women students.

The decrease in students will be restricted to the undergraduate group. The number of graduate students probably will be somewhat greater this fall than last.—HERBERT S. CONRAD, chief, research and statistical standards, Office of Education, Federal Security Agency.



Francis J. Brown

SHORT OF TOTAL WAR, IT IS MY FIRM conviction that enrollment in the fall of 1952 will be approximately the same as that of last fall or slightly higher. The larger increases, perhaps to as much as 20 per cent based on fall 1951 enrollments, will be in engineering and the physical sciences, with liberal arts holding about even.

After this fall enrollments will move gradually upward for a period of approximately five years and then sharply increase to an enrollment in excess of 3,000,000 by 1960.

These projections are not derived from crystal gazing but rather from an analysis of already known data. Gen. Lewis B. Hershey and Charles E. Wilson, former director of defense mobilization, have both indicated that they see no reason to modify the existing deferment policies of Selective Service. They also have indicated that local boards will not be inducting any considerable numbers of age 18½ or 19 within the immediate future. These judgments give an assurance to high school graduates that they may count on a minimum of the first year of college during which they will be able to take the national competitive examination for potential deferment.

By September of this year, according to figures given out by the Department of Defense, some 265,000 men now in active military service will have been discharged. The per cent of these who will return to college will not be large since the majority of those discharged between now and next September will be those who were either in service at the time of the Korean incident or were in reserve status and recalled to active duty. The former represents younger persons who had volunteered for service. The latter represents the older men who already had served in

World War II. However, by the fall of 1953 some 460,000 men, a large proportion of whom were inducted through Selective Service, will be returned to civilian status. Whether or not the G.I. bill is expanded to provide educational opportunities for these men, some considerable portion of them will continue their education. If a G.I. bill is enacted, as now appears probable, it may be assumed that a fairly considerable proportion of those who meet entrance requirements will enroll in our colleges and universities.

The third factor bearing upon future enrollment is the birth rate. After more than a decade of consistent but gradual decline in the birth rate, it began to turn upward in 1935. With some fluctuations, it increased at the rate of approximately 50,000 a year until 1939. In that year the increase was more than 100,000 and continued to increase still further through 1943. In 1944 there was a slight recession but the curve turned sharply upward again to reach an all-time peak in 1947, a peak of 75 per cent above the number of births in 1940. The figure declined slightly, although it remained almost at this high plateau until 1950, when once more it turned sharply upward. If the birth rate for the last six months of 1951 continues through this year the number of births will be double the average annual birth rate of the 1930 decade.

Relating these figures to college enrollment, one need only add 18 to 1935 or to 1939 to determine the increased number of persons who will become of college age in 1953 or by 1957. Within only another decade, the number of persons of the age of college entrance will be nearly double the number now of college age.

If to this fact is added the continually increasing proportion of those of college age who go to college, the horizons of higher education, numerically speaking, reach proportions heretofore not envisaged. The report of the President's Commission on Higher Education indicated that the proportion of persons 18 to 24 years of age who enroll in college had increased 50 per cent within the three decades from 1910 to 1940. Of the veterans of World War II approximately 60 per cent of those eligible for enrollment in college entered our institutions of higher education under the G.I. bill.

This prediction is in terms of national total enrollment; it is not a prediction in relation to an individual institution. Many factors, which cannot be analyzed in this brief statement, will determine the extent to which specific types of institutions or a particular college or university will share in this increase.—FRANCIS J. BROWN, *staff associate, American Council on Education*.



Russell I. Thackery

MY GUESS IS THAT TOTAL ENROLLMENTS in higher education will drop about 10 per cent in the fall of 1952 over 1951. If we use the U.S. Office of Education basis for counting (which includes both part-time and full-time students), this would mean a fall enrollment this year of around 1,900,000, compared to 2,116,000 in 1951.

An "educated guess" (which mine is not) would require statistical analysis of many factors. I have, however, made the following assumptions: (1) that U.M.T. will not be a factor and that the entering freshman class will be about the same as 1951, since the 1952 high school class is about the same; (2) that general and R.O.T.C.

student deferment policies will remain constant but that there will be increased drafting of students not qualifying, particularly those over 20; (3) that the reduced enrollments of last fall will be reflected in succeeding classes; (4) that there will be another sharp drop in World War II veteran enrollment, roughly balanced by about 150,000 Korean war veterans under pending legislation; (5) that there will be no major change internationally.

No one compiles figures on total full-time enrollments in higher education. However, for comparative purposes it may be noted that Dr. Raymond Walters' survey of full-time enrollments in 818 four-year colleges last fall showed an 11.4 per cent decrease, with a 4.6 per cent increase in part-time enrollments. His figure on over-all total enrollment decrease over 1950 was 7.8 per cent, exactly the same as that of the U.S. Office of Education for its more comprehensive list.—RUSSELL I. THACKERY, *executive secretary, Association of Land-Grant Colleges and Universities*.



Guy E. Snavely

UNLESS THE KOREAN SITUATION evolves into something much more serious than now seems apparent, the outlook for college enrollment in the fall of 1952 would seem considerably brighter than a year ago. It is quite likely that the Congress will pass legislation soon that will extend G.I. benefits to boys participating in the Korean war. The increase in number of graduates from high school resulting from the increase in birth rate of some 20 years ago is another encouraging factor. Consequently, it is my opinion that next fall's enrollment in the realm of higher education will be about 10 per cent higher than it was in the fall of 1951.—GUY E. SNAVELY, *executive director, Association of American Colleges*.

THREE FACTORS MAY TEND FURTHER to depress higher education enrollment in the fall of 1952: (1) there are fewer college age men and women in the country now than in any one of the last seven years because of the large drop in the birth rate during the depression years; (2) the expiration of educational benefits under P.L. 346, and (3) the eruption of the cold war in 1950 into a limited but long-term action with the consequent expansion of the armed forces and the increase in employment opportunities.

A careful study of all aspects of these factors indicates that the fall 1952 total enrollment may drop to 1,950,000, an approximate 8 per cent decrease as compared with fall enrollments of 1951. However, the unknown factor at present concerns "extension of educational benefits to Korean veterans." Legislation now in development certainly will provide for some type of educational benefits to Korean veterans that may tend to slow further decline in enrollments. Any prediction at this time (March 1952) is no more than "the first approximation of an estimate," which may be a decrease ranging from 8 to 10 per cent below the 1951 fall enrollment total of 2,116,000.—J. L. MCCASKILL, *director, legislation and federal relations division, National Education Association*.



J. L. McCaskill

Some instructors offer a favorite course semester after semester, even though enrollments are small enough that students desiring the course could be accommodated in one section offered during one semester of the school year or in alternate years.

IN MY JUDGMENT, THERE ARE TWO ways by which the nontax supported college may attempt to ease the financial strain occasioned by present trends toward reduced enrollments and increased costs.

One method is by a stepped-up program of fund raising. An attempt may be made to encourage greater giving on the part of the institution's present constituency and to widen its appeal in order to interest many new givers. The second method is to evaluate the current policies in the use of personnel, equipment and other resources in the light of the objectives of the institution. Such a study may reveal many areas in which a wiser use of resources now available may be made.

Wise planning seldom will dictate the use of one of these methods to the exclusion of the other. However, it is not my purpose at present to deal with the first approach, that of increasing gifts to the private institution, except to say that it usually becomes easier to obtain new funds and friends for an institution that has its internal house in order and is using to the highest possible degree of efficiency the resources entrusted to it.

The largest group of givers to private institutions seems to be the alumni, the trustees, and friends of trustees of the institution. The administration and trustees of an institution well may restudy the institution's objectives and purposes and focus its resources sharply upon the accomplishment of these purposes before seeking to "sell" it to others as a worthy object of generous giving.

My concern here is with a common-sense budget policy for academic departments. Although there is need for the same type of self-study in the non-academic areas, these are outside of the present concern. The purpose of



A common-sense policy for

ACADEMIC BUDGETING

A. LELAND FORREST

Dean, Nebraska Wesleyan University
Lincoln, Neb.

this article is to indicate some of the steps that may be taken in setting up a democratic policy of budget making aimed at reducing waste to a minimum and at acquiring the high educational returns for whatever funds are available.

FACULTY COMMITTEE ADVISABLE?

Highest faculty cooperation in operating on a reduced budget or under inflationary circumstances comes from faculty study and participation in budget making. Some institutions have found a value in having a small committee of the faculty, the number to be determined by the size of the institution, elected by the faculty itself to study the budget with administrative officers before it is presented by

the president to the board of trustees. Sources of expected income, predicted trends in student enrollment, and related variables that harass administrative officials should become familiar to the faculty through such a committee.

While faculty participation in budget discussion is to be encouraged, it should be understood that the status of the faculty committee is that of an advisory group only. The responsibility of the president to make final budget decisions and to present and defend the budget before the board of trustees must be kept intact. To give legislative power to the faculty budget committee, or to any other committee or person for that matter, which robs the chief administrative officer of this prerogative is to so circumscribe his

power of action as to make his office meaningless.

Good administrative policy demands that the president must be given power to act in those areas in which he is held responsible. However, this fact does not do away with the desirability of having group judgment passed by his faculty co-workers on the budget matters that concern them and their program.

In one institution, departmental budgets are handed to department chairmen with spaces for five columns of figures following the budget designations. The first column carries the amount allotted for each item for the preceding budget year, while the second indicates the amount actually spent. In the third column the department chairman, after consultation with members of his department, writes in his budget asking for the new year. In a conference with the academic dean, the department chairman then defends his requested budget by outlining the needs and the program for his department. In the fourth column the academic dean enters his recommendation for the budget for the ensuing year and returns the budget to the president or business officer.

It is at this point that the faculty committee, meeting with the administrative officers, may best give the administration the point of view of the faculty and in turn may see the problem of the budget from the point of view of the total institution. The askings of all the departments, both academic and nonacademic, are discussed. Unusual askings by various departments are evaluated and rejected or accepted in the light of the needs of the total program. After this conference, the president enters the recommended budget for each department in the fifth column. This is usually the figure that stands as the departmental budget for the new year.

EVALUATION OF PRACTICES

During the days of peak enrollment, programs and practices were developed on many campuses that now need restudy. The faculty committee may be of great assistance to the administrative officers in such a study. Many ways to wiser uses of funds and personnel may be found.

In some of our smaller institutions, multiple sections of courses are still planned in spite of reduced enrollments. Some instructors offer a favorite course semester after semester,

even though enrollments are small enough that all students desiring the course could be accommodated in one section offered during one semester of the school year, or even in alternate years. Programs geared to swollen enrollment must now be studied in the light of present student needs. Budget requests from academic departments should be accompanied by evidences of studies showing that excess sections have been deleted and that staff salaries are being wisely spent.

Every institution needs a periodic study of its curriculum in the light of student demands and needs. No small institution operating on a reduced budget can justify overextended course offerings that regularly draw three or four persons per class. Administrative officers alone may find it difficult to suggest that certain courses be deleted and that certain staff personnel either be used elsewhere or be helped to get appointments in other institutions. When such needs are seen by the faculty people on the budget committee, they can do much to maintain faculty morale in the face of curtailments.

EMPHASIS BE PLACED WHERE?

Some years ago John Dale Russell wrote in "The Finance of Higher Education": "The institution that can pay the high salary and that can furnish the best working equipment can, if wisely administered, attract the most capable faculty members and may thus become an outstanding institution; the institution that cannot meet competition in faculty salary and academic equipment is almost certainly doomed to mediocrity."

In these days of restricted budgets I would place the emphasis where Russell places it, and in the order given. Buildings and equipment are important to an institution. Of greater importance, especially in the face of the higher cost of living, are adequate salaries.

Budgets for academic departments in this time must give first place to adequate salaries for instructional personnel. A wise policy here seems to be to schedule course offerings so that by careful planning a student may meet his course requirements and have an adequate spread of educational experience, while at the same time courses are offered on some alternating schedule so that classes achieve the largest enrollment that is in keeping with good instructional practices. I would emphasize the latter state-

ment concerning good instructional practices. Classes should not run high enough to impair the educational opportunity of the student in the class. However, within limits, it is better to increase teaching load and student enrollment per class in order to give significant salary increases at this time than to be prodigal with the time and energy of our instructional personnel and be compelled to keep salaries low.

REACH COMMON DECISIONS

My suggestion is that at this point there is need for a cooperative discussion of teaching loads, class size, needed personnel and related topics. By cooperative I mean that the dean or deans who are responsible for class schedules, the faculty budget committee, the chief business officer, and the president should sit together frankly before the searching question, "How can we spend the funds available for the greatest educational good and for the fairest return to the faculty?" Common decisions to drop some courses that are evidence of overextended departmental offerings, to increase the size of some classes and reduce the frequency of scheduling of others, and to reduce personnel if necessary often make difficult transitions possible with little disturbance to faculty morale.

It has been the experience of many administrators that faculty members will assume increased responsibilities, in return for increases in salary, if the alternatives involved in such increases are discussed by faculty representatives and administration and are the result of a common decision.

Again let it be emphasized that class size and teaching loads must be kept in harmony with the findings of our best accrediting agencies. However, a common-sense policy of budgeting in which established faculty members have a share in the study of present practices often reveals many areas in which course offerings may be alternated, class size increased, and temporary personnel either used in other areas or assisted in obtaining appointments outside the institution. Such a policy often may release significant sums for salary increases and the purchase of essential equipment without increasing the over-all budget. With our own house in order, we are in a better position to approach our constituency with requests for enlarged giving to meet the new and crucial problems facing us.

COLLEGES AND UNIVERSITIES GENERALLY have been slow to recognize the importance of good employer-employee relationships as they involve what is now often referred to as the non-academic or service staff. Prior to World War II it was widely assumed that the janitor, like the professor, worked for the dear old school because of love of his profession. What a rude awakening when because of underpay, lack of recognition, and other neglect of nonacademic employees, organized labor invaded the sanctity of the college campus!

There was a time when the college staff consisted principally of the faculty, with a relatively few janitors and maintenance men. As colleges and universities are now organized, the non-academic staff often outnumbers the faculty staff. If this large group of service people are capable and loyal employees, an able faculty may create a really distinguished institution. If the service staff is neglected, ill-treated, and unhappy, even a distinguished faculty is seriously handicapped.

An intelligently directed personnel program is important. In the smaller colleges the chief business officer, if he is qualified and willing to undertake the responsibility, no doubt can carry out an adequate personnel program designed to ensure fair and humanitarian treatment of the service group of employees. When in the larger institutions the service staff employees become so numerous that the chief business officer is no longer able to keep in close personal touch with such a program, then he should be provided with an assistant who is a qualified personnel officer.

At Carnegie, the nonacademic staff numbers about 525, something like 50 per cent of the entire full-time staff. This group is made up of the following classifications: secretarial and clerical, 145; nonprofessional employees of the educational departments, 105; operation and maintenance of plant, 175; food service, 100. With respect to these groups, the non-academic personnel officer is responsible for carrying out, insofar as time permits, the following general program:

1. Developing, codifying in appropriate manuals and keeping up to date policies and procedures pertaining to vacations, holidays, sick leave benefits, absenteeism, safety and general working conditions.

2. Undertaking all the preliminary

Dealing intelligently with the

NONACADEMIC STAFF

H. R. PATTON

Controller
Carnegie Institute of Technology

work involved in getting new personnel, including maintenance of contacts, interviewing, testing and screening of applicants, and otherwise helping to locate candidates for jobs.

3. Originating and promoting training programs in those departments where the need is most urgent.

4. Conducting continuous studies of rates of pay for the purposes of eliminating inconsistencies and inequalities and of maintaining appropriate levels of pay.

5. Supervising job analyses for the purpose of the preparation of manuals of job description and job classification.

6. Making a continuous study for the purpose of improving employee-management relationships including (a) plans for recognition of length of service, (b) procedures for handling grievances promptly and adequately, (c) plans for merit rating and incentive bonuses, (d) plans for combating tardiness and absenteeism, (e) a program of recreation.

Obviously the organizational arrangement for taking care of the foregoing functions must vary from one educational institution to another. Certainly in the state colleges and universities where civil service is involved and where in some instances the personnel officer has responsibilities covering academic and administrative appointments, practice will vary from this proposed pattern. However, in the privately supported colleges and universities where the faculty and the administrative staff at the higher levels are otherwise provided for, the functional arrangement proposed in this discussion has proved to be successful.

In connection with a program of this nature, several supplemental ob-

servations of general interest seem appropriate:

To prevent unnecessary dissipation of the time of the president of the institution, the nonacademic personnel officer should be responsible to the chief business officer. Inasmuch as his dealings are largely with the business and operational staff, it would be inappropriate to have his line of responsibility other than through the chief business officer.

The nonacademic personnel officer should be a staff officer without line responsibility. His judgment must be free from the influence of jealousies inherent in day-to-day line operation, and he must not permit himself to be used to by-pass the authority of those with line responsibility. Furthermore, his point of view must be detached and objective and he must provide the worker who has a grievance that has been ignored by his superior an opportunity for his day in court. To be most successful, he must meticulously avoid assuming an attitude that might lead to the suspicion that he is encroaching upon or interfering with line responsibilities.

The nonacademic personnel officer must be careful to approach problems from the worker's point of view. This may be more important on a campus where the workers are not organized as they are elsewhere. In the absence of organized representation, the management point of view, which often is wrong, is likely always to prevail unless someone represents the worker.

Finally, the nonacademic personnel officer always must remember that when working with and for campus professional people he will accomplish much more by tact and diplomacy than he would by an argumentative or dictatorial approach.

AUDIO-VISUAL CENTERS

SHERWIN G. SWARTOUT

Professor of Education
State College for Teachers
Brockport, N.Y.

THE IMPETUS TO CARRY OUT THE study to be reported here arose from the attempt to formulate a normative plan for the administration of college audio-visual programs from the many different and ill-coordinated programs now found.

The problem may be resolved into one major question with four minor parts: What are the basic administrative practices or principles common to all college and university audio-visual centers? This question seems to have four integral phases: administrative organization, audio-visual services, personnel and financial problems.

Three approaches were made in gathering data: (1) study of the literature, (2) the sending of a questionnaire to audio-visual directors, and (3) visits to the audio-visual centers for interviews and observation.

Information was gathered about the audio-visual centers of the University of Illinois, Indiana University, Univer-

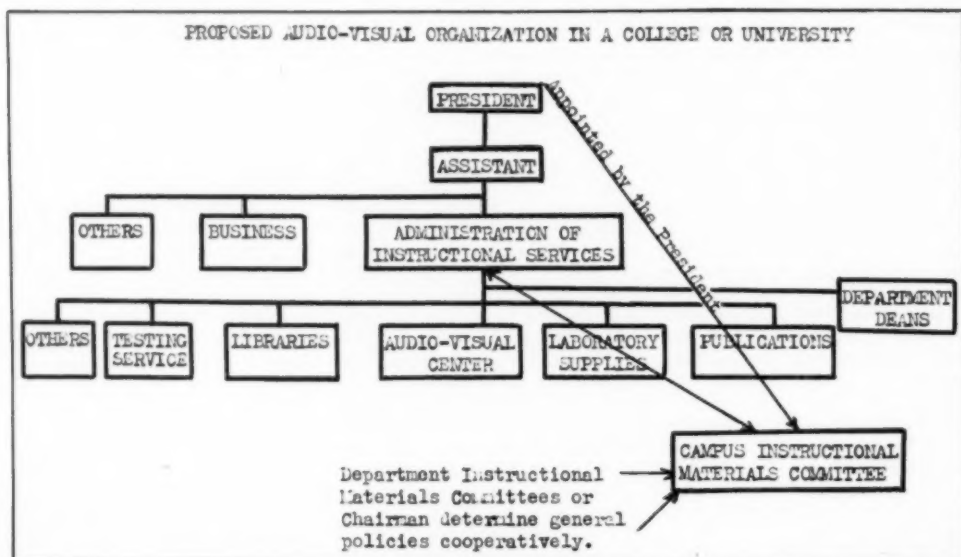


sity of Iowa, University of Michigan, University of Minnesota, Ohio State University, Pennsylvania State College, Stephens College, Wayne University,

and the University of Wisconsin. These institutions were selected because they were ranked highest by audio-visual authorities and also because of their geographic location.

Of the several possible audio-visual administrative organizations one largely eliminates interdepartmental jealousy and yet imposes the stature commensurate with A-V's true position in higher education. This pattern also allows effective public relations, sound financial support, the best educational service, and continual evaluation on a campuswide basis. It is proposed that the audio-visual center should be organized under the president through the administration of instructional services, not in any college or college department.

The services offered by college and university audio-visual centers tend to



become more and more inclusive. The ordinary services that they include, plus other desirable services, are outlined here:

Instructional Material Services

Distribution of Material

- Campus scheduling
- Off-campus scheduling
- Motion picture inspection
- Clerical

Production

- Graphic art service
- Photographic service
- Educational radio
- Publications

Engineering

- Equipment maintenance
- Special device construction
- Storage and transportation

Audio-Visual Education Program

Educational training

- Teacher training courses
- In-service consulting
- Previews
- Selection and evaluation

Curriculum laboratory

- Demonstrations
- Audio-visual library
- Teaching materials
- Teaching equipment

Audio-visual research

- Curriculum planning
- Development of material and techniques
- Special projects

The minimum personnel that any college audio-visual center needs is: audio-visual director or coordinator, librarian, artist, photographer, radio technician, projectionists, clerks and stenographers. It is important to note that the professionally trained staff members may be selected and assigned so that each may perform several functions—perhaps one major and two or three minor functions. This is important for two reasons: It relieves the monotony of the job and it prevents a crippling effect on the program when one staff member leaves the department.

FINANCIAL PROBLEM

The median budget for the 10 audio-visual centers studied was about \$33,000. The arithmetical average budget was more than \$50,000. This is a median of approximately \$4 per student or \$35 per faculty member. (One college was spending \$13 per student annually for audio-visual services.) Each A-V allotment will vary with

items included in the budget and the equipment, services and facilities available.

GENERALIZATIONS

1. It is now well established that audio-visual materials can contribute to learning provided they are used properly and under the correct conditions.

2. Audio-visual materials are being used more frequently in higher education.

3. There are four distinct patterns of audio-visual organization in the 10 college and university audio-visual centers studied.

4. Of the four types, the organization with the most direct line to the head administration seems to be the

12. Because of the continued change that has been occurring in the past and that will occur in the future, the audio-visual program, equipment, floor space, and administrative practices must be kept as flexible as possible.

13. All 10 of the audio-visual administrations studied recognized that the primary function of the audio-visual center is the improvement of instruction.

14. Principles of effective administration that the audio-visual director should use are: (a) recognition of the various offices essential for satisfactory performance of functions; (b) delegation of authority commensurate with the delegated responsibility; (c) assignment of responsibilities to the proper office; (d) clear definition of



most strategically and logically located since the service rendered is college-wide.

5. The trend seems to be toward including the administration of all learning aids in one center so that curriculum integration may be accomplished more uniformly.

6. Educational efficiency is a function of educational objectives realized and money spent.

7. There is a trend toward decentralization of the less expensive equipment according to use and toward the centralization of the more expensive materials in one location.

8. Reference librarians and audio-visual directors are really closer in educational philosophy than their respective physical locations indicate.

9. The cost of higher education is going upward along with the increased enrollments.

10. Audio-visual funds should be part of the regular school budget and probably should not be less than \$4 per student or \$35 per instructor.

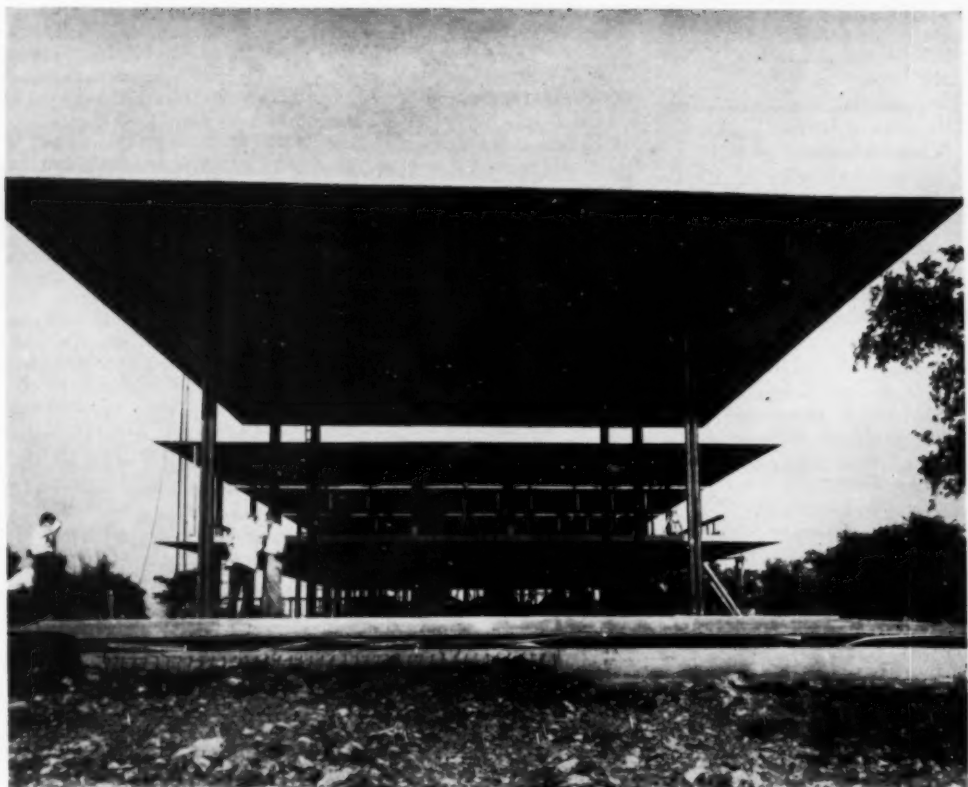
11. Evaluation is an integral part of the instructional process and is carried on in terms of behavior or end results.

the lines of administrative responsibility and policies, and (e) provision of adequate coordination among various offices so each person can understand his part in accomplishing the objectives.

FURTHER RESEARCH

There are many possibilities for further research in the field. Foremost are further investigations into other more effective technics for determining present status. Much more investigation is needed in methods of evaluating the audio-visual services as well as in the instructional use of these services. It is relatively easy to find the amount of materials available and frequency of their use, but extremely difficult to find out how effectively they were used.

Audio-visual materials are known to occupy an important part of fundamental education — how important these are might be determined through research. In the face of the present world status, this is a primary international problem. Accelerated research in the technics of fundamental education in all countries today may be our only hope for world peace.



Trinity University cuts high costs of building with

LIFT-SLAB METHOD

IS IT POSSIBLE FOR AN AMERICAN university to whip high building costs without sacrificing values of function, quality and beauty?

From pioneering Trinity University, San Antonio, Tex., there comes a resounding "Yes!" This church related college, owned by the synod of Texas, Presbyterian Church, U.S.A., can support its assertion with startling facts and figures.

Trinity has made the first employment of a building technic that might prove to be the most revolutionary advance in construction methods in half a century. The method, together with Trinity's uninhibited educational laboratory designs, is credited with sub-

LEON M. TAYLOR

Public Relations Director
Trinity University

stantial economies of time, money, labor and materials.

This new system is the Youtz-Slick lift-slab method, conceived simultaneously by Philip Youtz, New York architect, and Tom Slick, Texas oilman-rancher-scientist, and perfected in the laboratories of the Institute of Inventive Research and the Southwest Research Institute, near San Antonio. Devised as an approach to better buildings at lower costs, the Youtz-Slick method is peculiarly suited to the multiple expansion of straight-line designs. The new method is astonish-

ingly simple. Huge, reinforced concrete slabs are poured and cured on the ground, one atop the other, like pancakes. Then hydraulic jacks hoist the roof and upper-floor slabs up slender steel columns to a desired height. Welders secure locking collars within the slabs to the column supports, and workmen, under shelter, complete the building by adding non-weight-supporting curtain walls and partitions. The system eliminates forms for monolithic concrete work, simplifying operations considerably; it consists, simply and literally, of "raising the roof."

Throughout its 83 years, Trinity has demonstrated an alert readiness



to move ahead, both geographically and academically. Founded in 1869 in the tiny Texas village of Tehuacana, it migrated to Waxahachie in 1902 and to San Antonio in 1941. In 1948, having acquired a magnificent new campus site of 107 acres and a construction fund of \$1,264,000, Trinity prepared to build. When skyrocketing prices would not permit the indulgence of traditional college construction, Trinity trustees shelved expensive Colonial designs in favor of functional plans and moderately priced native materials. They turned inquiring glances toward the Institute of Inventive Research and the Southwest Research Institute, in whose laboratories the Youtz-Slick method was nearing perfection.

Trinity's first building, a 69 room classroom-administration unit of 44,500 square feet, meant for the Youtz-Slick method an opportunity for thorough testing on a major commercial project. The new technic, commercially untried but pronounced sound by conservative engineers and scientists, meant for Trinity an oppor-

Above: The finished classroom-administration building at Trinity University. Opposite Page: Final stage of the Youtz-Slick lift slab method employed in construction of the main building. Slabs present a trim, graceful profile.

tunity to revive a building program that rising building costs had almost derailed.

Trinity launched its historic building program under the direction of architects O'Neil Ford, Harvey P. Smith, and Bartlett Cocke of San Antonio, and consultant architect William W. Wurster, dean of architecture, University of California. The university employed Frank T. Drought of San Antonio as structural and mechanical engineer, with Fred N. Severud, New York City, as consultant engineer.

BID IS AMAZINGLY LOW

Contractors invited to bid on the classroom-administration building were asked to submit double bids: one for conventional construction and one for the Youtz-Slick method. James Stewart Company of Dallas, expressing a marked preference for lift-slab, got the contract with a bid of \$6.38

per square foot, dollars lower than Trinity officials had anticipated.

Youtz-Slick engineers poured 14 separate slabs to form the second floor and roof of the 61 by 384 foot structure. Each slab measured 73 by 46 feet, and each weighed 168 tons. A battery of eight synchronized hydraulic jacks, each lifting 21 tons of the 168 ton mass, was activated by a pump operated by a 10 h.p. motor. Thousands of spectators watched as each massive concrete slab slid noiselessly up eight slender columns at a rate of five feet per hour. All slabs were anchored without mishap, and no slab cracked during the lift.

Workmen quickly installed curtain walls—mostly wide expanses of glass—and interior room partitions. The big Trinity laboratory, the world's first major lift-slab structure, was completed in less than six months. The job could have been completed much earlier had not manufacturers supply-



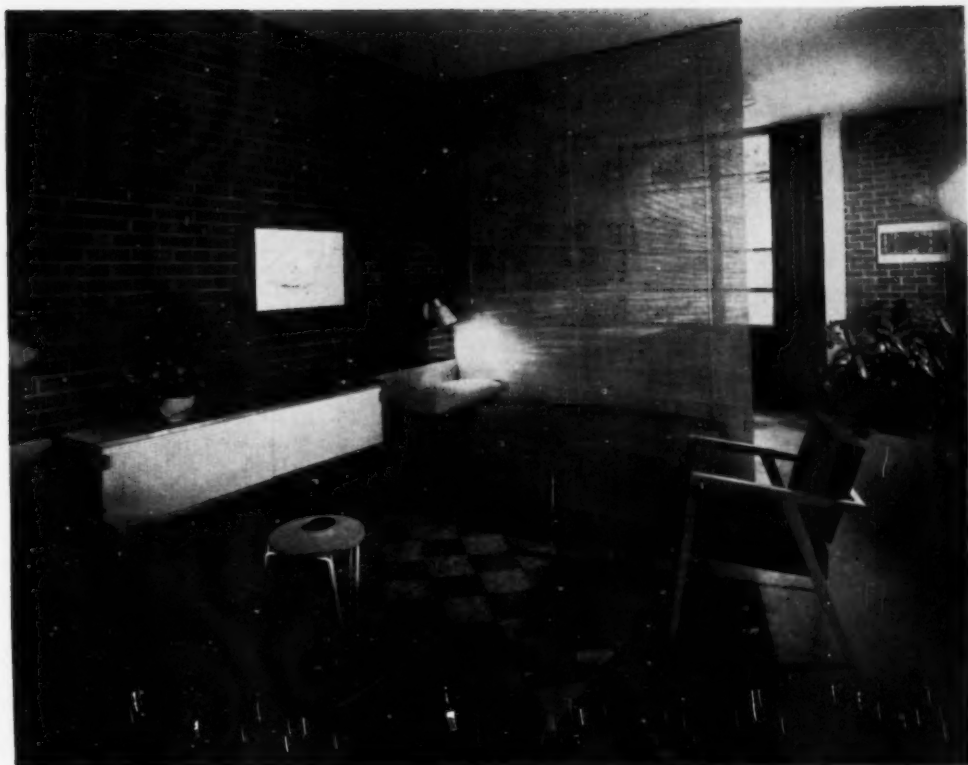
Above: Corridor presents the illusion of an elevator shaft; it is nearly a city block in length. Below: Trinity men relax in this 3000 square foot lounge, which separates the two "living" wings of the men's residence hall.

ing the finish materials been slow in making deliveries.

Trinity's first building involved many economies, some inherent in the lift-slab process and some resulting from the simplicity of design. The contractor estimated a saving of \$21,900 on concrete work. Only five carpenters were employed to build the minimum requirements of wooden forms. The "straight" laying of masonry saved about \$1200. Because mechanical tradesmen could come and go independently of other tradesmen, there were hardly any time consuming delays resulting from conflicting installation schedules. Inclement weather caused no work stoppages, for all workmen were under shelter after the first slabs were raised.

Heating installation cost only 36 cents per square foot; the electrician saved \$1200; the plumber, \$1500. Economy was practiced, too, in installation of stud bolts for wall partitions. Stud guns fired bolts into concrete at only 31 cents per stud instead of the 52 cents they would have cost if drilled. There was a





saving of 21 cents each on some 2000 studs. Total cost of the building to Trinity was \$321,000.

Upon completion of the first structure, Trinity quickly began work on a library and a men's residence hall. Like the classroom-administration building, the two new buildings are provided with five or eight foot overhangs to shield all floors from the sunlight. In order that occupants of each building might have an unobstructed view of the beautiful San Antonio skyline to the south, buildings were spaced laterally or vertically on the undulating campus in such a way as to preserve all natural vistas.

The new men's residence hall achieved a simplicity of arresting beauty. Florence Knoll of Knoll Associates, New York City, who designed all furnishings for the men's living quarters, said: "I've never seen a handsomer dormitory building anywhere in the world." The cost of the dormitory was \$203,141.70, and of the library, \$269,700. The library was designed for a capacity of 250,000 volumes.

This neatly modern room for two men is one of 32 in the new men's residence hall at Trinity. Note unplastered brick wall; diffused lighting. Furniture is trim, but sturdy. One bath serves two rooms. There is no inside corridor.

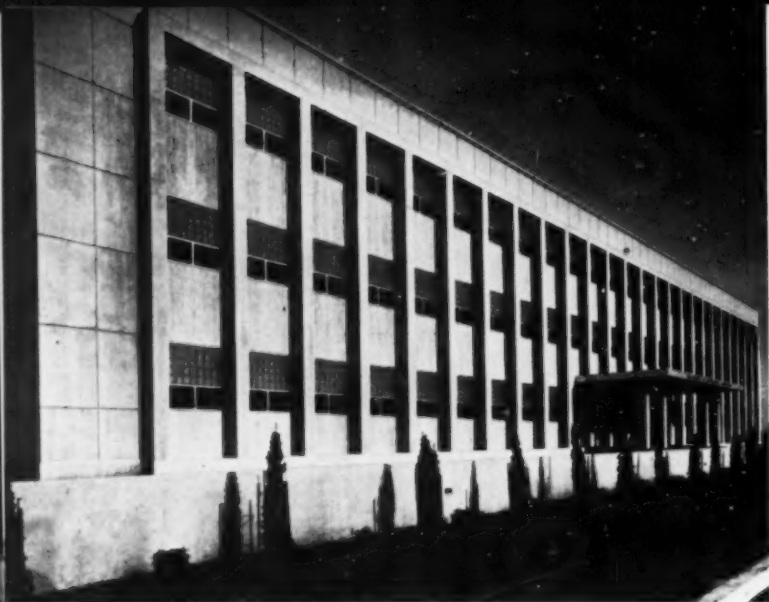
The university will move to its new campus the first week of June, while building of the "minimum campus" is still in progress. The present temporary campus, four miles west of Trinity's new home, has been sold. Ready for occupancy on the new campus are the classroom-administration building, containing 18 administrative offices, 24 faculty offices, and 27 classrooms; the George Storch Memorial Library of 25,000 square feet, containing stack and work areas, seminar rooms, main reading room, periodical browsing lounge, kitchen for tea service adjoining a roomy patio, offices, main lobby, restrooms, and elevator, and a men's residence hall of 22,810 square feet, with 32 large rooms designed for two-man occupancy, 16 baths, a 3000 square foot lounge, and an office.

Trinity officials now are seeking the easing of government building restrictions in order that they may go forward with four other buildings: a

27,280 square foot student union, two women's residence halls of 25,000 square feet each, and a science hall of 37,460 square feet.

Buildings, present and future, feature reinforced concrete construction, metal and glass curtain walls, brick masonry stiffener walls, plywood and plaster interior partitions, asphalt tile floors, acoustical ceiling panels, fluorescent lighting, steam heat, and fire-proof construction. Most classroom and library partitions are movable in order that they may adjust to classes of varying sizes.

Trinity, holding membership in the Southern Association of Colleges and Secondary Schools, serves an average of 3300 students each year: 1400 undergraduate and graduate students on the day campus, 1000 undergraduate students at its evening college in the city and at San Antonio military installations, and 900 summer school students on the day campus.



RICHARD A. GLEESON LIBRARY

LIBRARY: *Modest in cost and flexible in arrangement*

IN THIS ERA OF HIGH COSTS THE school architect, more than ever before, must design for tomorrow as well as for today. A building designed solely for current academic needs is poor economy; its true value depends on its ability to adapt to the ever-changing pace of education.

This concept was uppermost in planning the new Richard A. Gleeson Library at the University of San Francisco. Its outstanding feature is flexibility. Modular design, in both construction and equipment, permits radical changes in floor arrangement when necessary. Book stack areas can be converted easily for seminar use or into reading rooms as needs arise.

The basic design factor is an "open" floor offering a loft type of building with uniform 9½ foot ceilings throughout. There are no monumental areas to hamper change or expansion. This planning not only permits maximum flexibility but, naturally, was instrumental in lowering construction costs.

Containing 89,500 square feet, the Gleeson Library cost \$925,000 to construct; equipment added another \$90,-

000. Excluding fees, the square foot cost was \$11.45, a modest figure for an institutional building of this type. The project, opened in September 1950, took 14 months to complete.

Economy also motivated the type of construction and choice of materials.

Measuring 98 by 204 feet, the structure is chiefly of reinforced concrete with flat slab floors and roof. The exterior is of exposed concrete with

MILTON T. PFLUEGER

Architect, San Francisco

travertine spandrels framed by 26 vertical piers or pillars that extend across the façade. While decorative, these pillars also perform an important function.

Maintenance costs were carefully considered in the planning. This is reflected in the choice of floor coverings—rubber and asphalt tile—and the window system.

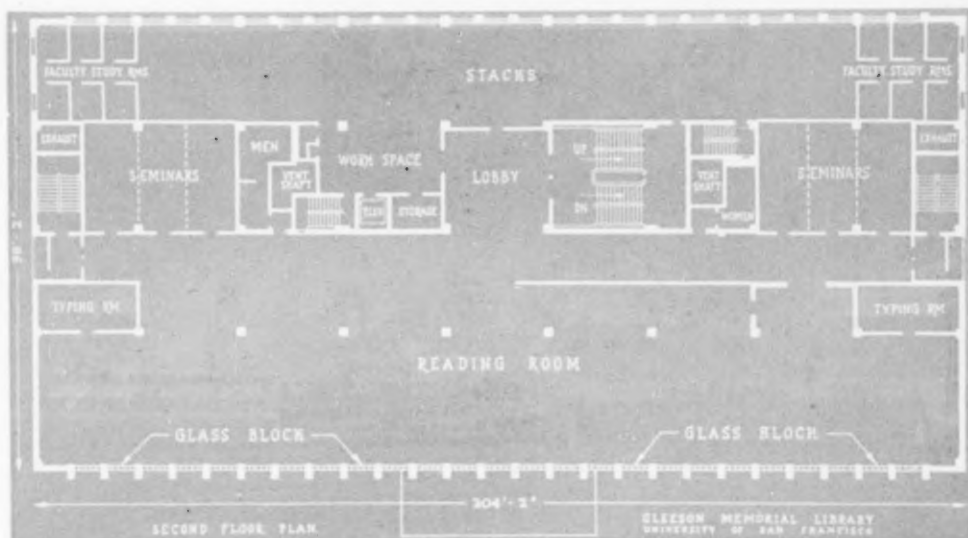
On the south or main entrance side of the building, panels of light-directing glass block and clear glass sash have been combined to provide a window system that cuts maintenance and air-conditioning costs. It also solves the problem of how to increase the "depth" of daylight into the large reading rooms. The light directional glass block, containing scientifically-designed prisms, directs daylight upward; the off-white ceilings serve as reflectors to diffuse the daylight evenly on reading desks far from the outside wall.

Another economy in this type of fenestration is the absence of shades, draperies or blinds; none is needed because the direct sun never reaches the reading tables. The depth of the vertical piers on this south exposure shields the fixed glass sash from the low morning and afternoon sun.

There are few windows on the east and west walls, but the north exposure offers another large expanse of glass. Glass block was not specified for this location because the sun presents no problem. These windows mostly serve book stack and service rooms. An additional saving in maintenance is the exclusion of dust, an important

READING ROOM





item when many thousands of volumes are concerned. All windows are fixed to keep out dirt and to provide better control of air conditioning.

Most of the basement area is devoted to stacks with a capacity of 144,000 volumes. Like other sections of the building, this basement offers unused floor space, a reserve for future expansion. A section containing a boiler room and electrical equipment is in the basement, together with an integrated unit offering a stairway, elevator, book lift, and toilet room. This unit is duplicated on the three main floors and the rooftop reading lounge.

The circular first floor lobby acts as a hub serving a central public stairway, the entrance foyer, and a main corridor running the length of the building. Outside doors have been provided at either end of the corridor.

On the south side of this corridor are a large reading room, an exhibit room, archives, coat room, and staff offices. On the north is a stack area, a bibliography and catalog room, and a spacious area for acquisition and processing.

New books are received in this processing department by elevator from a delivery space in the basement. They are checked first by an order clerk in the northwest corner of the area, then move along a process line to classifier and cataloger, after which they are numbered, fitted with card pockets, and placed in the stacks. Ap-

proximately 12,000 volumes can be handled annually in this department, which has sufficient space for future expansion.

The second floor, similar in most details to the third, offers a 200 foot long reading room along the side and a stack room, flanked by faculty study rooms, along the north wall. Sandwiched between these main rooms are the central stairway, the service "shaft," and two ample seminar areas. The last mentioned are provided with folding partitions to accommodate groups of various sizes.

Every attempt has been made to consolidate related literature and research material. The second floor reading room, for example, contains the bulk of the active collection on subjects ranging from theology to industrial relations. The stack room on the same floor contains the research and storage collection on the same subjects; even bound periodicals are located as closely as possible to the subject division in the reading and stack rooms.

The reading room is divided according to modules by bookcases 5 feet high with study tables between each row of cases, an arrangement following closely that in the University of Colorado and the University of Nebraska libraries. Individual study tables, grouped along one side of the room, are screened from the corridor by a wooden partition that measures 7 feet in height.

The arrangement of bookcases and partition offers the student, when seated, the feeling of a private room. On standing, however, he can see the entire expanse of the large room and in no way feels oppressed by the comparatively low ceiling.

Two student typing rooms, one at either end of the reading area, can accommodate a maximum of nine stations; at present there are only five. Double glazed partitions are effective in muffling typing noises that might otherwise disturb students who are reading.

The fourth floor (or roof top) reading lounge, accessible from three stairways, was planned in place of a browsing room. It consists of a 112 foot long area with walls (chiefly of clear plate glass) and a roof terrace, partially canopied. Here, in addition to alfresco study, students may enjoy the privilege of smoking, which is permitted in the seminar areas also.

A penthouse atop this lounge contains equipment used in the split system of heating and ventilating: radiation at exterior walls and ducts providing warm filtered air in other areas of the building.

Much credit is due Father William J. Monihan, librarian, who realized the value of functional and flexible arrangements based on the library module. His extensive research trips through the nation substantiated both his and the architect's idea of what a library should be and should offer.



CURVED GLASS FAÇADE

Photos by Fred Stone

Focal point of new group of residence halls is

HARKNESS COMMONS

ARTHUR D. TROTTEMBERG

Operating Manager of
Houses and College Dormitories
Harvard University

FLAGSTONE CONCOURSE



MOST DICTIONARIES DEFINE A "COMMONS" as a building housing a college dining hall. The Harkness Commons at Harvard is much more than that. It does, of course, fulfill its restaurant function by providing kitchen and dining hall facilities equipped to feed up to 3000 students in shifts. It is also designed, however, to provide a modern, pleasant atmosphere where students and faculty from varied fields of study can profit from common social events and the interchange of ideas.

The Harkness Commons is the focal point of a new group of seven dormitories, all designed by The Architects Collaborative (TAC). The curved glass façade of the building fronts on a large grassed quadrangle. This quadrangle is sunk 4 feet below the level of other quadrangles in the project and in winter is flooded to serve as a skating rink. The exterior walls of the Commons building are buff brick and limestone, which provide adequate contrast to the darker window strips. The large glass windows combine with the brick and limestone to form a pleasant and interesting example of contemporary design.

The first floor of the building is devoted to lounge and meeting rooms, storage space, offices, washrooms and cloak rooms. The south entrance opens on the large, curved main concourse paved with flagstones. To the right and down a short flight of steps is the Swaine Room, the smaller of the two



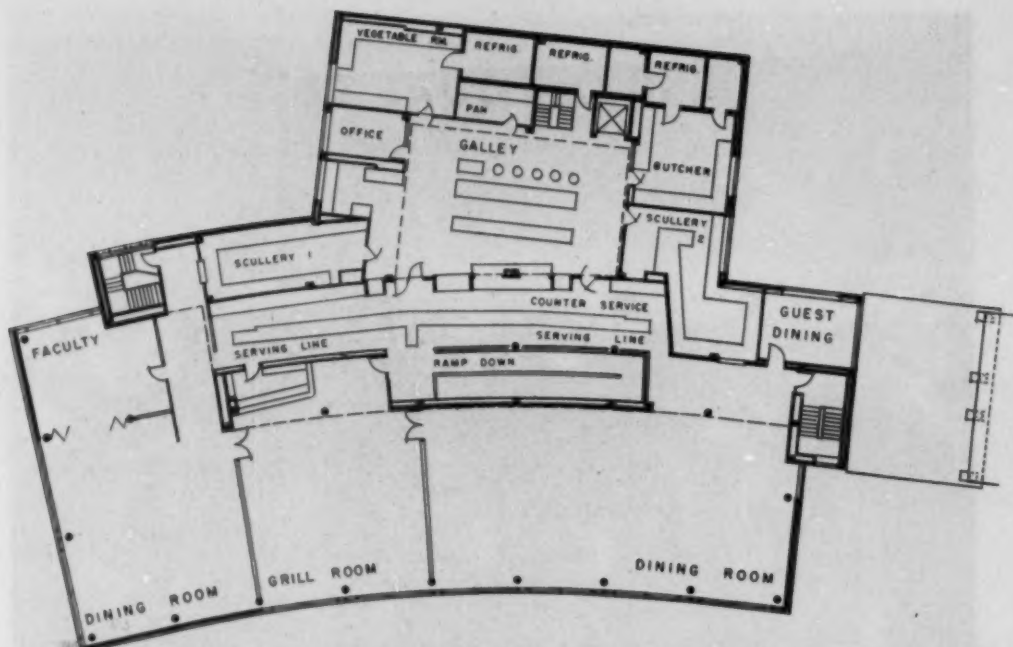
Above. Swaine Room, smaller of the two first-floor lounge rooms. Fireplace nook, walnut paneling, built-in leather couch provide intimate sitting area. Below: Cantilever concrete ramp leads from main concourse to second floor.



first-floor lounge rooms. The general décor here is dark brown and tan. A fireplace nook with walnut paneling, indirect lighting, and a built-in leather couch provide an intimate sitting area. The glass wall to the east affords a view across the flagstone terrace to the sunken quadrangle.

At the north end of the Swaine Room a floor-to-ceiling sliding door opens into a larger meeting and lounge room. Again the general décor is dark brown and tan. Lighting is provided by louvered, fluorescent fixtures recessed into the ceiling in strips. Scattered floor lamps provide more immediate light for reading. The flooring in both first-floor lounge rooms is gray asphalt tile. The ceilings are finished in acoustic tile.

A three-way cantilever concrete ramp leads from the main concourse to the second floor which houses large and small dining and grill rooms and kitchen facilities. The cantilever ramp is one of the more interesting and exciting features of the Harkness Commons. The ramp rests on a central reinforced concrete support and is enclosed on one side by a curved,



Second floor plan showing large and small dining and grill rooms and kitchen facilities. The large main kitchen, directly behind the self-service counters, is

surrounded on three sides by scullery, vegetable room, butcher shop and refrigeration rooms. The entire kitchen area forms an almost separate service wing to the west.

gaily colored tile wall, designed by Herbert Bayer. The ramp not only is interesting and fun to ascend but serves a functional purpose as well. It prevents crowding at the concourse level during peak dining hours by providing approximately 90 feet for students to form a dining hall line.

At the head of the ramp, diners file down one of two self-service counters and find themselves in the main dining rooms, which are broken into three large areas by oak and redwood partial partitions. All the large dining rooms enjoy an open view of the sunken quadrangle. The lighting, floors and ceilings are much the same as those found in the first-floor lounge rooms.

The large main kitchen lies directly behind the self-service counters and is surrounded on three sides by scullery, vegetable room, butcher shop, and refrigeration rooms. This entire kitchen area forms an almost separate service wing of the building to the west.

The modern décor of the Harkness Commons is brightened throughout by the addition of various works of noted contemporary artists. An allocation of

\$40,000 for art work was realized through the generosity of an anonymous donor. Outside the curved façade of the building rises a stainless steel pylon—27 feet high, designed by sculptor Richard Lippold. Students are both fascinated and amused by this "World Tree" and already a ceremonial tradition has grown up about it. Each year at the vernal equinox students march around the pylon in solemn procession to plant ball bearings at its base. Inside the building there are a number of abstract murals executed by Herbert Bayer, Josef Albers and Jean Arp. The most recent addition is a long mural for the large dining room to the north, done by the Spanish painter, Joan Miro. These abstract works of art have contributed much color and interest to the building. In addition, it has had a most stimulating effect on patrons of the building.

STAY WITHIN BUDGET

Architect Walter Gropius and his colleagues at The Architects Collaborative further distinguished themselves by staying closely within the original

budget estimate of construction cost. The contract construction cost of the building amounted to \$703,363. The total cubic content of the building being 420,000 cubic feet, the cost was \$1.67 per cubic foot. Fees and furniture costs brought a total over-all cost of the building to \$808,180, exclusive of art work.

Compared with more traditional Harvard buildings of an earlier era, the Harkness Commons represents low construction costs. Such economy is made possible by the modern approach to architecture and by scrupulous planning. Students, faculty and the Harvard maintenance department were constantly consulted by the architects, both in the early planning stages and as the building progressed. The manager of the dining halls, for example, played an extremely active part in planning the layout and basic equipment of the kitchens.

In this day of soaring construction costs the Harkness Commons has proved itself an example of sound, modern construction, incorporating contemporary esthetic principles, and erected at moderate cost.

How we built an **AUDIO-VISUAL CENTER**

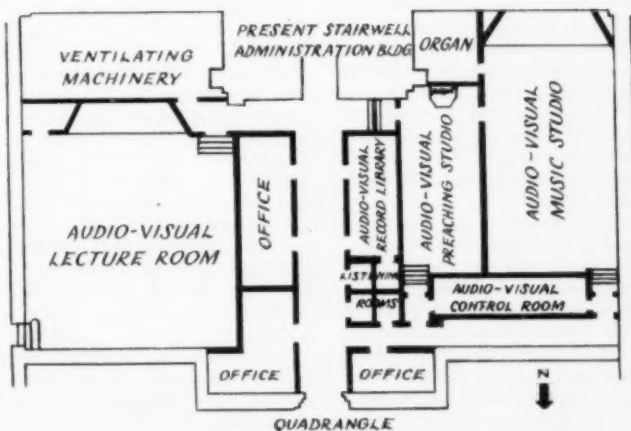
R. C. CURREY

Assistant to Controller
Union Theological Seminary, New York

A CLASSIC PIECE OF ADVICE FOR GETTING ahead in life is, "sell yourself." This is exactly what a building fund filmstrip did at Union Theological Seminary. It sold itself so well to all who saw it that the proposed building plans were revised to include a modern, completely equipped audio-visual center not only where filmstrips could be used properly in educating students but where high grade recording and other mass media facilities would be readily available, both for classroom use and for rental.

For many years the seminary had planned this small wing to be added to its present administration building. To help raise the money for its construction our public relations officer prepared a filmstrip with a synchronized tape recording that he used in conjunction with his appeals to various ecclesiastical groups. So persuasive was this device that a clamor arose for allocating a portion of the new wing to teaching young ministers-to-be the same technics in communication that proved so successful in training our soldiers in World War II, and in soliciting funds.

Since most of the Union Seminary faculty and staff were relatively inexperienced in audio-visual matters, a thorough study of needs was required. Our first step was to inspect other colleges and universities that were active in this field, and to borrow whatever ideas and procedures were suitable for our operations. The University of North Carolina's communications cen-



Above, right: Auburn Hall at Union Theological Seminary, New York City.
Below, right: Floor plan of the modern audio-visual center at Union Seminary.

ter proved to be a fruitful source of information and appears to be taking a lead in pushing mass communication on a statewide basis.

The University of Chicago has a well organized center consisting of three rooms, three full-time persons, and an assortment of portable equipment for rental. Many other schools were making use of equipment but few had any integrated programs of storage, acquisition or usage.

After digesting as many ideas as possible, we started making our decisions.

Decision No. 1 was to hire a team of M.I.T. acoustical experts to design three rooms suitable for the most critical kind of recording or broadcast work. Two of these rooms are actually first-class sound studios complete with individual control rooms. The other is essentially a lecture room adapted to recording. There are no parallel walls or ceilings, and there are no large, hard plaster wall surfaces.

Extensive use has been made of acoustical tile and plaster to achieve the desired amount of resonance. It is quite possible to have a studio too "dead" and this must be guarded against, especially in choral or instrumental recording. Each room has an automatically controlled motion picture screen, power driven rheostats for dimming lights, and fully insulated ventilating systems.

HEART OF SYSTEM

The heart of our system is the main control room. This houses the main mixing console, the two amplifier racks, two tape recorders of broadcast quality, two three-speed turntables, and one top quality disk recorder. This system is not only connected to the three special rooms but also is joined to the chapel and to two other large classrooms seating between 150 and 200 students each. Thus we can make superb recordings from six areas as well as channel the output of our main console back into these same six places.

Each room or area connected to the main control room has its own sub-control room with a four-position mixing console and preamplifier. The console serves for controlling the local public address system, and the output of sound projectors can be piped into the same system to eliminate wires being strung across the room. Eighteen position switches on the inputs to the



Audio-visual music studio at Union Theological Seminary.

console give us complete flexibility and almost unlimited expansion for the future.

The second big decision concerned the quality of equipment to be purchased, for in the electronics field there is a wide range of quality. Many hours were spent "hashing" over the relative merits of different brands of tape recorders, disk recorders, projectors, turntables and record players. We divided our needs into three categories: (1) classroom equipment, (2) rental equipment, and (3) studio equipment.

MEDIUM PRICE EQUIPMENT

We were almost unanimous in agreeing that "home" quality equipment had neither the fidelity nor the durability demanded of school equipment. For classroom and rental use we favored medium price equipment, designed for the job and made by companies not likely to disappear overnight. For studio use, it was decided that the best was none too good. Our two studio tape recorders and one studio disk recorder cost \$9000. With such equipment we are able to make the finest of recordings for rental or sale, for church use or school use.

The third major decision concerned operation and upkeep. Since we are new at the game, our operational policies undoubtedly will change fre-

quently, but we have solved them temporarily by hiring a former seminary student who had trained himself in electronics. Not only has he a well equipped shop with about \$2000 worth of testing equipment and parts, but he is in charge of running the studio recorders as well. A doctorate candidate with an interest in audio-visual work also has been hired part time to take care of the rental service and the vital function of advising and previewing.

As the center's use grows it is our hope that a trained specialist can be hired full time to organize workshops, training programs and conferences to exploit the vast potential inherent in our equipment.

VALUE TO DETAIL

In submitting specifications to three engineering firms for manufacture and installation of equipment, it was necessary to go into complete detail covering every wire, switch and conduit. This in itself was a major task and involved considerable speculation as to future usage. The closeness of the three bids is testimony to the value of such detail on any building and equipment project.

It is our estimate that the audio-visual structural features, wiring and equipment added about 25 per cent to the total building costs; however, its value to the seminary is unlimited.

PROMOTIONS, RANK and PAY

VAN MILLER
Professor of Education
University of Illinois

THE COLLEGE OF EDUCATION OF THE University of Illinois elects annually a committee* on promotions in rank and pay to advise the dean. Through staff discussion and action in 1947-48, the first year of service for the present dean, a committee was established to study the basis for promotions in rank and pay. That committee laid the groundwork for the present annual committee, which has been in operation starting with 1948-49.

The university statutes provide that the dean of the college shall make recommendations for promotions in rank and pay on the sole basis of individual merit. These are transmitted to the president as the basis for his recommendations for action to the board of trustees of the university. The statutes also provide that the dean shall have the advice of the college executive committee on all such recommendations that pertain to staff members on tenure or being recommended for tenure. The present committee, therefore, represents an internal procedure of the college of education developed beyond requirements of the university statutes. The college of education is but one division of the university. It has a professional staff of about 125.

Since the university statutes require that the dean be advised by the executive committee, the college has seen fit to make executive committee members also members of the elected committee on promotions in rank and pay. The three members of the executive committee are elected by the faculty each year from the ranks of professor and associate professor. The balance of the committee on promotion in rank and pay consists of four members elected by the total faculty:

*The 1950-51 committee members were: Charles M. Allen, Kenneth D. Benne, Nathan L. Gage, Harold C. Hand, Kenneth B. Henderson, David R. Krathwohl, and Van Miller. The committee also had help from two members of former committees—E. Graham Pogue and Viola Gribanovsky.

one from the rank of instructor, one from the rank of assistant professor, and two with rank unspecified. The dean is an ex officio member of the committee.

Since the committee influences the decisions with respect to the most tangible form of reward that the university has to give, it becomes an important mechanism for development of the over-all operative policy of the college. Through the recognition given by promotions in rank and pay, those activities deemed most valuable for college staff members are designated and become the activities on which staff members probably expend the greatest amount of time and effort.

CAUSE FOR DISSENSION

When power over recommendations for promotions in rank and pay is solely in the hands of the dean, unless the basis for his decisions is openly understood and is subject to appropriate modification, the operative policy of the college may be perceived by individual staff members in terms of "what the boss wants." A member of a former committee characterizes staff perception of the basis for promotions prior to the establishment of the committee in the following way:

"Promotions were obtained primarily by: (1) doing the things that attracted favorable attention, such as writing, research and public service; (2) having a friend in court; (3) covering up one's weaknesses.

"Although by and large there were no great injustices in the operation of the promotional system, the very fact that the processes were not open to inspection by the staff created a certain amount of grumbling and dissension."

When so powerful a motivating force is controlled by a dean, many

staff members may be expected to give first attention to their own relationship to the dean and to seek individually to surpass their colleagues in accomplishments that they think will attract his favorable attention. It may be granted that the dean who is effective will represent the purposes of the college and will recognize teamwork and appropriate balance in his staff. Nevertheless, it seems important to have every staff member look directly to the purposes of the college and to seek teamwork and balance.

In a democratic culture each staff member should be in a position to understand and to influence over-all operative policy directly. Through the procedure established by operation of a committee on promotions in rank and pay each individual staff member has a broad frame of reference in which to plan and appraise his own activities. He participates in the continuous reshaping of that frame of reference by (a) the kind of individuals elected to the committee and (b) the weight of his individual report, to be described later, on the composite array of activities reported by college staff members.

The 1947-48 committee spent considerable time thinking through and discussing in faculty meetings the purposes to be served by the college and the various staff activities that would accomplish those purposes. The list of activities and the clarification of meaning have been modified with each year of staff experience under the present system. Improvements have been continuously sought (a) to promote and sustain staff cohesion and morale, (b) to increase the objectivity of judgments, and (c) to encourage honest self-appraisal. Each year the committee requests an individual report from each staff member.

College of education policy states that promotions in rank and pay should be determined on the basis of all phases of faculty service. An in-

dividual faculty member is allowed the privilege of submitting the kind of evidence on which he would like to be judged, including teaching evaluation. In keeping with this policy each individual staff member is invited to submit a report on whatever phases of faculty service he wishes to have considered. The committee asks that he start his report with some indication of the nature of his position.

The staff member is told that it is the intention of those in the college charged with the responsibility for making recommendations for merit increases to make as strong a case for each individual as the evidence will permit.

The following classifications suggest the phases of faculty service on which determination of promotion may be properly made: administration, teaching and guidance, field services within Illinois, participation in the work of educational organizations, publications and research. Under administration attention is given to committee work as well as routine administrative functions and work in executive positions. In a college of education it has seemed particularly appropriate to give special consideration to reports on teaching and guidance that indicate attempts to investigate and improve the teaching-learning process.

SOLICIT OTHERS' JUDGMENT

For each calendar year each member is free to report from the foregoing categories as he sees fit. Reports are filed so that the committee may have access to reports of preceding years when such information would be helpful. Each year the committee also solicits judgments from persons who have been appointed by the university to administrative positions within the college of education about the work of members of the staff who are responsible to them in an administrative, supervisory or counseling capacity. These are in writing and are available to the staff member judged, who has the right of rejoinder.

Prior to any reading of reports the dean and the committee meet to establish categories to which individual cases may be assigned. The categories established last year might be loosely described as: "2," deserving maximum raise in pay; "1," deserving raise in pay; "0," appropriate service but no raise in pay, and "-1," ter-

mination or terminal appointment recommended. Promotion in rank also may be considered for any deserving individual whose present salary or recommended salary is commensurate with the rank proposed.

Committee members have available a record of the length of service to the college of each member, his initial rank, his last promotion in rank, his current salary, and the amount of his last raise in salary. Reports are evaluated in terms of the member's rank. For example, more is expected from a full professor than from members of lower rank.

After the committee has received all of the individual reports, along with administrative judgments of those whose work is partially or wholly administration or supervision (along with rejoinders to these judgments, if any), it undertakes a self-training procedure in the interest of greater reliability in member-judgments. A fair sample of all of the reports received is first read independently by each member of the committee. The committee then meets to reconcile the ratings of individuals on the trial run.

The ratings given each individual by each member of the committee are reported. When the committee members are in agreement there is no discussion of the case. When there is disagreement, those committee members deviating most widely from the norm speak first in explaining their rating. This discussion is carried on until consensus or compromise is reached.

Through the discussion, committee members are able to develop group norms with respect to relative weights to be given in terms of the quantity and quality of evidence submitted. This reading of a selected sample of all reports and the initial reconciliation is considered a training period for committee members. Experience with such a procedure has resulted in a surprisingly high degree of agreement on the ratings of individual reports by members of the committee.

A calendar then is established for the routing of all individual reports (including those used in the trial run) to each member of the committee. He reads and rates all of the reports in a compact period of time and passes them along to the next member. He makes appropriate notes for his later use, explaining his own ratings. When all members have completed their

work, a clerk tabulates the ratings given to each staff member by each committee member and a process of reconciling differences in the ratings is followed similar to that used in the trial run.

The ratings given members of the committee are withheld from them, and a member under consideration withdraws from the room while his colleagues reconcile their ratings of him. The reconciliation of ratings of committee members is delayed until after all other staff members have been considered. Committee members receive first notification of ratings assigned to them at the same time and in the same way as other staff members.

DEAN NOT BOUND TO AGREE

The dean also will have independently studied and rated all reports. At this point, the reconciling of committee ratings with those assigned by the dean is carried out in much the same manner. When the dean and the committee are in agreement there is no discussion. When there is a difference in the ratings, the case is discussed until agreement or compromise is reached. The dean is not bound to agree or to compromise since the committee is advisory. Each year, in a very small number of cases, his recommendation has differed from that advised by the committee but is explained to the committee. Such differences on the dean's part have been both plus and minus.

Although all of the ratings are initially based on the report submitted by the staff member, it is true that additional opinion and knowledge through informal channels may be discussed during the reconciliation of ratings. This represents one of the problems in the work of the committee: the inequity of informal channels of communication since they are often the result of sheer accident and are available in different degrees with respect to various staff members.

In the final analysis determining the number of categories to which cases may be assigned and the number of cases that may be assigned to each category becomes a function of the funds available. The reconciliation of ratings involves an agreement as to the amount of increase to be accorded each favorable classification. When a final budget amount actually is known, the committee and dean may have to undertake some final shifting of ratings.

In its experience with the committee on promotions in rank and pay, the college has carried on experiments with student evaluation of teaching, field evaluation of services received, and jury evaluation of quality of research reports. None of these evaluations have been used in committee considerations unless they were submitted by the staff member as an addendum to his individual report.

Student evaluations of teaching provided little discrimination and were scarcely comparable because of the differences in kinds of classes and in student memberships. The evaluations of field services turned out to be largely "fan mail" submitted on the request forms. Possibly those receiving services without charge wanted to be complimentary so that they might continue to receive services. The trial experience with jury evaluation was unsatisfactory to the research workers, and the amount of time taken on the part of other staff members for such jury service was beyond manageable dimensions.

This does not mean that the college is through with any attempts to improve objectivity in such evaluation—it means rather that the experiences it has had to date have not led to the development of any promising procedure.

INFORMATION CONFIDENTIAL

Several other problems confront the college in the development of this system of giving staff members a real understanding and a part in developing appropriate operative policy through effective assignment of tangible rewards. One of these is the problem of the relation of committee members to other staff members. The committee members have access to personal information about other staff members that must be held in the strictest confidence. They must never discuss the report of any staff member with another. If the opinion becomes prevalent that some members of the staff are personally favored by certain members of the committee, it is obvious that faculty morale will be distinctly lowered and that confidence in the work of the committee will be shattered.

The common kind of interpersonal staff relations regarding the seeking of help on problems, the discussion of a job offer elsewhere, the report of progress on personal projects, all take on new implications for the individual

discussing them with a member of the committee. Discussions by the committee reveal that members do not feel they can change their relationships with their friends. Committee members feel they should alert faculty members to the difficulty of their position so that faculty members may avoid conversations intended to influence a committee member with respect to his responsibility in passing on matters of promotion in rank and pay.

Another problem arises from the differences in the kinds of reports received. Some staff members are reluctant to submit any report since it seems like boasting to them. Under the mandate of the electorate such



members can be given consideration only if they submit a report. The most effective appeal to members of this sort has been the need of their report to make fully operative a process established by the faculty.

The committee has no present means of asking those who report with too much brevity to expand their report or to urge those who tediously cover every routine detail carefully to curtail their verbosity. Another aspect of the problem related to the kind of reporting is presented in the difference between reports written from the position of neutral observer to those in which a staff member interprets and evaluates his own activities for the committee.

Other problems related to reporting are those of coordinating individual reports for team activities. It is confusing to the committee when each member of a group claims undue share for the success of what was done and just as confusing when each attributes the credit for success to all of the other members of the group. Possibly such statements in reports should be cleared voluntarily by each staff member with the other staff members involved in the group projects that he is reporting.

When one is engaged in a long-range research or development proj-

ect, how can it best be reported and credited annually? If it is reported only upon ultimate completion, it may happen to be finished during a year when there are little or no funds available for raises. If it is reported annually while in progress, there is danger that credit will be given for the same work in more than one year.

Another problem is that of taking into account offers from other institutions. It is obvious that under this type of procedure the dean has little freedom in trying to meet other offers that a staff member receives during the year. If the recognition of individual merit evident from the offer of more advantageous appointment elsewhere is to have any weight, it must be current during the time the committee on promotions in rank and pay and the dean are establishing their recommendations. The college must avoid the temptation to individuals to stir up offers they do not intend to consider seriously in order to put pressure on the committee. The weight of any judgment by employing agents of other institutions is open to question since it is based on less information than a local judgment of performance as member of the staff.

ENHANCES RESPECT

These problems represent areas for further development in the procedure used by the college. The operation of the present system tends to focus attention on the over-all purposes of the college and the individual's best contribution to them. Committee members who know the work of the committee intimately have been uniformly impressed with the fairness and sincerity of its work. They have also had the privilege of being alerted to the wide diversity of valuable activities under way. This has enhanced the respect they have for other college staff members. Each must wish inwardly that every member of the staff could know and appreciate all that is going on in the college.

For each individual staff member a valuable annual review of his own work is provided. He assesses himself in terms of the over-all goals of the college and his own responsibility in the total program. As he looks back and evaluates, the staff member plans ahead not only in terms of his interests and competences but also in terms of the composite value system continuously being redirected for the college as a whole.

ON NOV. 26, 1951, THE SUPREME Court of the United States handed down a decision of direct and immediate concern to those under contract with agencies of the federal government. Although the Wunderlich case¹ did not involve an institution of higher education, we should reexamine the provisions of our government contracts in the light of this important decision.

In 1938, the Martin Wunderlich Company was awarded a contract by the Bureau of Reclamation to construct the Vallecito Dam in southern Colorado. The contract included the following provision:

"Article 15. Disputes.—Except as otherwise specifically provided in this contract, all disputes concerning questions of fact arising under this contract shall be decided by the contracting officer subject to written appeal by the contractor within 30 days to the head of the department concerned or his duly authorized representative, whose decision shall be final and conclusive upon the parties thereto."

The dam was completed on scheduled time, but the contracting officer refused to approve vouchers in the amount of \$172,302.23. The construction company filed an appeal with the Secretary of the Interior within the 30 day period as demanded by Article 15 of the contract. The secretary confirmed the decision of his contracting officer in all respects.

The Martin Wunderlich Company filed its claim with the United States Court of Claims. The court of claims, by a unanimous decision,² held that the ruling of the Secretary of the Interior was "arbitrary," "capricious" and "grossly erroneous" and awarded the plaintiff the sum of \$155,748. The Department of the Interior appealed to the United States Supreme Court.

The following excerpts are taken from the majority opinion of the court, delivered by Mr. Justice Minton:

"This court is again called upon to determine the meaning of the 'finality clause' of a standard form government contract.

"This court has consistently upheld the finality of the department head's decision unless it was founded on fraud, alleged and proved.

¹United States v. Wunderlich et al., 72 S. Ct. 154 (1951).

²Martin Wunderlich et al. v. United States, 117 Ct. Cl. 92 (1950).

GOVERNMENT CONTRACTS IN LIGHT OF WUNDERLICH DECISION

T. E. BLACKWELL

Vice Chancellor and Treasurer
Washington University, St. Louis



"By fraud we mean conscious wrongdoing, an intention to cheat or be dishonest. The decision of the department head, absent fraudulent conduct, must stand under the plain meaning of the contract.

"Respondents were not compelled or coerced into making the contract. It was a voluntary undertaking on their part. As competent parties they have contracted for the settlement of disputes in an arbitral manner. . . . The limitation upon this arbitral process is fraud, placed there by this court. If the standard of fraud that we adhere to is too limited, that is a matter for Congress."

DISSENTING OPINION

Mr. Justice Douglas delivered the dissenting opinion, in which he was joined by Mr. Justice Reed, as follows:

"Law has reached its finest moments when it has freed man from the unlimited discretion of some ruler, some civil or military official, some bureaucrat. Where discretion is absolute, man has always suffered. . . . Absolute discretion is a ruthless master.

"The instant case reveals only a minor facet of the age-long struggle. . . . It may be that in this case the equities are with the government, not with the contractor. But the rule we announce has wide application and a devastating effect. It makes a tyrant out of every contracting officer. He has the power of life and death over a private business even though his decision is grossly erroneous. Power granted is seldom neglected."

Mr. Justice Jackson also filed a dissenting opinion, as follows:

"Granted that these contracts are legal, it should not follow that one who takes a public contract puts himself wholly in the power of the contracting officers and department heads. When we recently repeated in *Moorman* that their decisions were 'conclusive, unless impeached on the ground of fraud, or such gross mistake as necessarily implied bad faith,'³ (emphasis supplied), I supposed that we meant that part of the reservation for which I have supplied emphasis. Today's decision seems not only to read that out of the *Moorman* decision, but also to add an exceedingly rigid meaning to the word 'fraud.'

"Men are more often bribed by their loyalties and ambitions than by money. I still believe one should be allowed to have a judicial hearing before his business can be destroyed by administrative action."

It is difficult to add much to these vigorous protests of the three dissenting justices. The decision clearly calls for legislative action. In fact, Justice Minton invites it. As you will recall, he said:

"If the standard of fraud that we adhere to is too limited, that is a matter for Congress."

Since the decision is so clearly at variance with the *Moorman* case and a long line of prior cases, it is to be hoped that members of the judiciary committee of the House and Senate

³United States v. *Moorman*, 338 U.S. 456.

will take cognizance of this obvious need for legislative relief.⁴

Individuals and institutions are not free to accept or refuse government contracts in time of national peril. The call to patriotic duty is more compelling than direct coercion. Since virtually all government contracts contain this standard "finality clause," the Wunderlich case means that all who respond to this call to serve the government place their financial lives in the hands of the contracting officer. No matter how careless, stupid, incompetent or stubborn he may be, his findings of fact are not subject to judicial review. One seeking relief from such bureaucratic tyranny must show that the contracting officer was guilty of an actual intention on his part to cheat or be dishonest.

Another fallacy in the reasoning of the court in this decision is its assumption that a review of the findings of the contracting officer by his departmental chief is arbitral in character. The very essence of the process of arbitration is that the arbitrator shall be as free as possible from bias, i.e. from any personal interest in the outcome. It is not unusual for contracts to contain a compulsory arbitration clause. Usually such arbitration clauses provide that each party to the contract shall select one arbitrator, and that the two thus chosen shall mutually agree upon a third. It is not unequitable for the courts to sustain the finality of the decision of a board of arbitration thus selected. But such proceedings cannot possibly be considered analogous to the demand of government that it sit in judgment on its own actions.

As Mr. Justice Jackson reminds the Secretary of the Interior:

"Undoubtedly contracting parties can agree to put decisions of their disputes in the hands of one of them. But one who undertakes to act as a judge in his own case or, what amounts to the same thing, in the case of his own department, should be under some fiduciary obligation to the position he assumes. He is not at liberty to make arbitrary or reckless use of his power, nor to disregard evidence, nor to shield his department from consequences of its own blunders at the expense of contractors."

⁴Representative Celler has introduced a bill (H.R. 6214) to provide for judicial review of decisions of federal officers under the "finality clause" of government contracts. Senator McCarran has also introduced a similar bill (S. 2487).

Business manager is in position to determine

MAINTENANCE STANDARDS

ROBERT W. FENIX

Financial Vice President and Business Manager
Willamette University, Salem, Ore.

A STANDARD USUALLY IS THOUGHT of as that which is established by authority as a rule for measuring. It is a carefully thought out method of performing a function. This does not mean perfection but the best method, procedure or condition for a given situation. "To maintain" means to keep in a certain state of efficiency. Maintenance usually is considered to be the heating, lighting and ventilation of the plant as well as the installation and repair of machinery and equipment, the operation of elevators and other internal transportation, and the janitorial services. In many colleges maintenance includes the maintenance of the grounds.

The business manager will be assumed to be the chief business officer who reports directly to the president. It is his duty to set administrative policies for the best use of the physical and financial resources of the institution subject to the approval of the president. He must apply the best business principles to the management of the business of the institution so that it successfully may carry out its educational objectives. Business standards, too, must consider the educational policies as well as the best business practices. It therefore becomes necessary for the business officer to work closely with the president and deans in carrying on the work of his office. The educational officers look to the business officer to provide all of the facilities required by the academic departments controlled only by the limits of the financial resources available.

The proper care of the plant and equipment rests upon the business officer.

The director of physical plant is an important member of the business staff, who reports to the business manager. It is considered good business practice for the business manager to delegate some of his responsibility to qualified staff members. He assigns the maintenance of the physical plant to the director of the physical plant or superintendent of buildings and grounds. The business manager does not give up the control of this activity. The director reports to the business manager to discuss matters of policy and procedure. There are some institutions in which the directors of the physical plant have dictatorial rule over the plant. In some very large institutions the complete job is left in the hands of the director as a matter of expediency. There are other cases in which the business manager is not interested or does not have the time to do the job.

The director should be trained and experienced in the mechanical skills. Often he performs one or more of the trades well and has a supervisory ability to direct workmen in boiler operation, carpentry, plumbing, painting, plastering, electrical work, and janitor work, as well as grounds maintenance. Directors usually are not experienced or trained in education. Often they do not know the basic objectives of the institution. Many business managers have heard directors indicate impatience at students and

faculty for having caused work for the maintenance staff. At times it even seems that the work would be easier if there were no students or faculty. These examples are the exceptions to the rule. Most directors are anxious to find out what is needed for the best interests of the institution and consult with the business manager for direction. The director is not in a good position to have the information to make the best decisions on matters of policy.

The business manager is trained and experienced in education and business. The president expects him to combine these faculties in the proper proportions. The financial resources are limited and budgets are made for expenses and expenditures. The business manager must keep up the plant for the departments and yet keep within the budget. Unexpected costs often arise and decisions have to be made as to what changes are to be made in maintenance to stay within the budget.

It is part of the education of students to learn about maintenance. If they notice poorly kept buildings and grounds at the college of their choice they will assume such conditions are satisfactory. This would be contradictory to the aims of the college. Students are more willing to protect and use properly a well maintained plant. Plants that are not well maintained are often subject to malicious damage that may cause unnecessary expense.

If maintenance is deferred too long sometimes costly repairs occur and there is always the possibility of a plant or building being unusable and the educational program stopped completely. Preventive maintenance is an important policy for the business manager to incorporate in the maintenance program in order to prevent delays and expensive repairs. The business manager who understands and has information about the college is removed far enough from the details of maintenance to set the policies that are best for the institution.

Usually the plant should be kept in top condition. It will last longer and have better public relations value, and probably cost less to maintain over the years, if the best materials and workmanship are used in maintenance. During the Thirties there were times when business managers could not find the cash properly to maintain their plants. They were in a position to know the facts and set a lower standard

of maintenance. Less expensive help was hired. Student help was used to get certain work done at a lower cost and at the same time keep certain students in college. It was necessary to obtain less expensive or used materials.

Such conditions may arise again and the business manager will have to set a new standard. Some maintenance may have to be deferred until more cash is available. There may be times when the standard will have to be raised. Military and sanitary inspectors have caused business managers in some institutions to raise standards of maintenance.

The business manager is in touch with the college officers and is in the best position to change maintenance standards. There may be special events at an institution, such as a centennial celebration, that would warrant a change in maintenance standards. There may be public relations reasons for maintaining the grounds at certain standards, such as the maintenance of other institutions, near-by city parks, or residences. There may be a development program that is being

carried on at an institution and certain standards of maintenance could help or hinder such a program.

There may be political matters to cause a change in standards. For example, it might be well to do necessary repairs immediately if there is a possibility of a shortage of building materials in the near future. Local and state building regulations may change and cause an institution to change its standards. The business manager is in a good position to study these external factors and the condition of his institution and set new standards of maintenance. The director of the plant usually does not have the necessary facts and contacts to arrive at such decisions.

In conclusion, it would seem that the business manager is in a better position than the director of the physical plant to set standards of maintenance because of his position in relation to the rest of the organization. He has access to the necessary facts, he has the necessary contacts, his training and experience should make him better able to make decisions that are matters of policy.



Students get an opportunity to "talk about" at this

CAMPUS CAFETERIA

SCOTT WILSON

Principal Food Service Manager
University of California, Berkeley

IN FEEDING LARGE NUMBERS OF STUDENTS one of the things that annoys them the most is to feel that they have no way of making their likes and dislikes and their ideas for improvements known to the management. It makes them feel helpless to correct the little defects that in a food service operation are often the most aggravating. And it is equally annoying to management not to be able to talk over its ideas and plans with the students. If there is this lack of a "meeting of the minds" where food is concerned there are likely to be undesirable repercussions in the form of embarrassing letters to the student paper and the university administration, to say nothing of a decline in the number of customers.

At the Campus Cafeteria in Berkeley we are serving about 4000 meals a day and have found our little bulletin entitled "Bear Facts" to be the answer to our problem of communication between the students and management. The pun on the word "bare" was worked in since the school emblem is the bear. These little sheets of paper are passed out one to a table whenever we have some information we want to convey to the students, such as a change in meal hours, some change in our type of service, or merely a seasonal greeting. There is always a small cartoon, changing with each issue, to attract attention and a blank space for the student's suggestions is left at the bottom of the sheet. These slips are deposited by the students in suggestion boxes placed near the exit of each dining room. We usually hand out about 300 of these sheets, and in the early days of their use we got back approximately 100 with suggestions on them. Now we receive an average of about 20.

The type of suggestions we receive varies all the way from the most unflattering condemnation to the most gratifying praise. Fortunately for us, the great majority of the comments convey neither praise nor blame but



"BEAR FACTS"

In welcoming you to the Campus Cafeteria as the Fall Semester gets under way, there are a few things about our operation we would like to mention.

The Campus Cafeteria is operated by the University to provide a low cost, convenient food service for the students. To aid us in this service and to provide a clean place for the next person to sit, it is customary for our patrons to bus their own dishes. The easiest way to do this is simply to leave your dishes on the tray as you eat and when finished, carry them to the table near the dishwashing room.

We are as anxious as you are to have the lines move quickly so you won't have to wait. If you can be deciding before you get opposite each food item just which one you would like, if you will say the word "black" or "cream" to the coffee server, and if you will have your money out and ready before you get to the cashier, you will help us speed up the service.

Finally, we appreciate your patronage, we are anxious to please you, so we always appreciate your

SUGGESTIONS

No general complaints. However, your tossed green salads would have more eye appeal without the cooked and/or canned vegetables. The volume of these on the salads is small and could be eliminated.

Martin J. Masuika



"BEAR FACTS"

Before you leave for the holiday season, we want to wish you all a Merry Christmas, a Happy New Year and a particularly enjoyable January 1st!

We will be closed during the holidays on Saturday, December 16, Saturday, December 23rd, Monday and Tuesday, December 25th and 26th, Friday and Saturday, December 29th and 30th, and Monday and Tuesday, January 1st and 2nd. In other words, we will be open in Christmas Week December 27th and 28th and will be back in full swing again on January 3rd.

Since there is considerable interest nowadays in the use of black strap molasses, brewers' yeast, raw wheat germ, and Yogurt as food supplements we are currently offering them on our serving line.

Finally, we want to thank you each and every one for your patronage, for your cooperation with our various systems, for your very helpful suggestions, and general good will. You have made the past year a happy one for all of us and we look forward to serving you with ever-increasing efficiency in the coming year.

Bonne Année!

SUGGESTIONS

I eat here regularly and feel that this is about the best deal for my money that I know of. Thanks for decent food at decent prices. 2 suggestions: I think that the hot cereal requires more salt and the coffee urns should be turned around so that people may serve themselves, eliminating a bottleneck.

Nils A. Jensen

are carefully thought out requests for changes that the student feels will improve our service to him. These suggestions have been invaluable to us and have helped greatly in our efforts to please all of the students.

Many constructive suggestions have come to us signed and are promptly answered by letter, which usually ends

with the suggestion that the student drop in for a visit. Occasionally he does come in and we have a friendly chat, we show him the "behind the scenes" operation of the cafeteria kitchen, our commissary warehouse, butcher shop and bakery. The visit turns out to be an interesting one for him and an instructive one for

us. These personal talks always add to our store of knowledge on how to please students and help build good public relations.

Similarly in the case of the unsigned suggestions, we always try to act promptly on any that seem in the general interest. Some typical suggestions submitted have been: "Please provide toothpicks"; "Please add soy sauce to the condiment table"; "Serve more meat loaf"; "Make tomato juice available at lunch as well as at breakfast"; "Offer sliced cheese near the apple pie," and so forth. Aside from these relatively simple requests we also have received some very involved ones and of course we have received some that we have not thought it wise to put into effect.

SERVES OTHER PURPOSES

Aside from using our "Bear Facts" to receive student suggestions, we also have used it to put across some of our ideas and the changes that we have wanted the students to help us with. For instance, we wanted to save the money involved in the labor of dish bussing so we put out a copy of "Bear Facts" asking the students to bus their dishes to a central disposal point. We explained that the economies to be made in labor to us would be reflected in food to them. We also explained the advantage in faster turnover of table space and the fact that they would have cleaner tables to sit down to. We asked their cooperation.

It was a great source of satisfaction to those of us in charge to see the students read the "Bear Facts" for that day and then almost to a man carry their trays to the disposal table. It was as though they were saying "We want good, inexpensive food. We think you are doing your part and we are certainly going to do ours!" I say "almost to a man" because I think out of the 2000 lunches that day we counted 40 trays that had been left on the tables. Now if we find five or six we are surprised, and we often have 200 or 300 visitors that have never eaten in the cafeteria before.

We are very happy with this little pamphlet of ours as a means of communication between ourselves as managers and our students as customers, and we recommend something similar to any food manager who is looking for a method of keeping in closer touch with his clientele.



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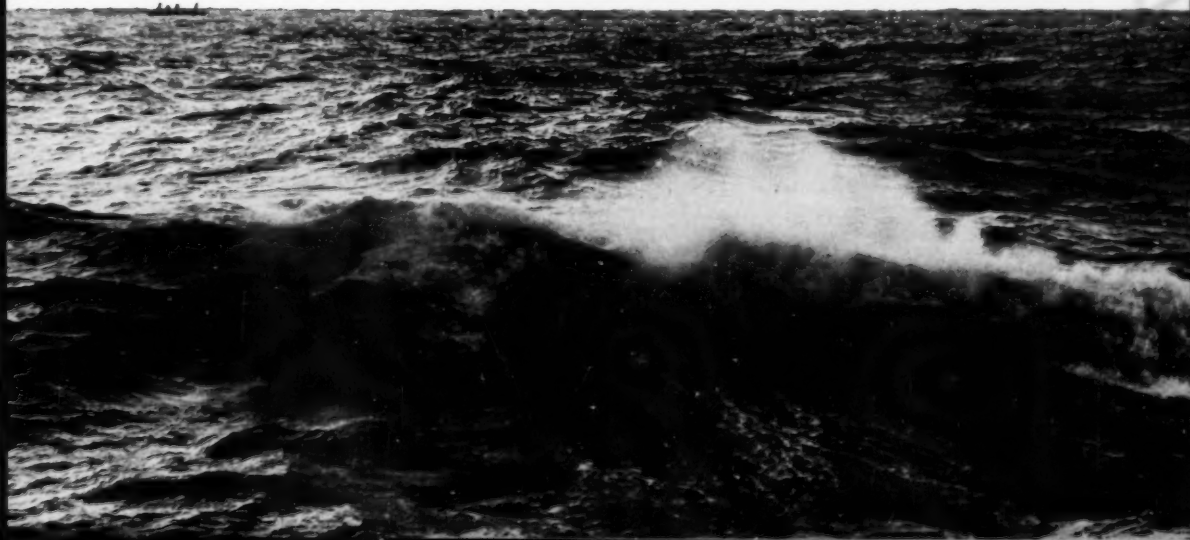
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NEWS

Educational Deferments Up for Review . . . Private Colleges Jeopardized by High Taxes and Inflation . . . Sees Change in Draft Policy . . . Workshop in Fund Raising . . . V.A. Cites Robert B. Stewart . . . Rochester Merges Colleges

230,000 Deferred Students Must Soon Face Board of Review

WASHINGTON, D.C.—Officials at national Selective Service headquarters stated that local draft boards throughout the nation soon must begin re-opening the cases of all young men with educational deferments. It is estimated that this will involve 230,000 young men who are 19 years of age or older.

Under the law, local boards can grant deferments for only one year, except for certain high school students. Regulations specifically require the re-opening of cases at the end of the academic year for all young men granted educational deferments to attend college.

As of February 29 this year there were 209,810 in that category. The law states that a young man not previously granted an educational deferment is entitled to one upon his request to finish an academic year he already has started in college, provided he maintains a satisfactory class standing. On February 29 there were 17,287 such "statutory deferments," the Selective Service System reported.

According to one official, "Practically any young man planning on going to college this fall as an entering freshman—who made good enough grades in high school to merit consideration—will just about be assured he can spend his first year in college if he maintains class standing and provided he is not ordered for induction before he gets started in college."

Colgate Raises Tuition

HAMILTON, N.Y.—Effective July 1, Colgate University will increase its tuition rate by \$100, bringing the total tuition to \$700 for the 1952-53 academic year. According to university

officials, the basic costs for a year at Colgate, including tuition, fees, room and board, would be approximately \$1400 after the increase.

High Taxes and Inflation Threaten Private Colleges, Says Princeton President

CHICAGO.—At the first meeting of the National Alumni Conference of Princeton University, President Harold W. Dodds stated that he was "profoundly worried" about the ability of private colleges to survive in the face of high taxes and inflation. He was of the opinion that the survival of private colleges was the critical area in higher education, and urged that they be maintained as "islands of independence in education without political accountability."

President Dodds warned that "the moment we get federal underpinning we lose our independence." He expressed the hope that when the American people become aroused to the issue they would see that the private colleges received adequate support.

In a press conference preceding the alumni conference, Dr. Dodds appraised many problems facing colleges, faculties and students as follows:

The day of complete dependence upon endowment funds was over for colleges, he noted, and there has been a distinct trend toward conservatism in American colleges in the last 10 years. He stated that communism is not a threat today to American youth in college because "they're on to it," and that efforts to throw "a fence" around the thinking of the American college student would meet resistance.

President Dodds emphasized that a national system that protects young men going to college from the duties of citizenship will not produce effective leaders for the future.

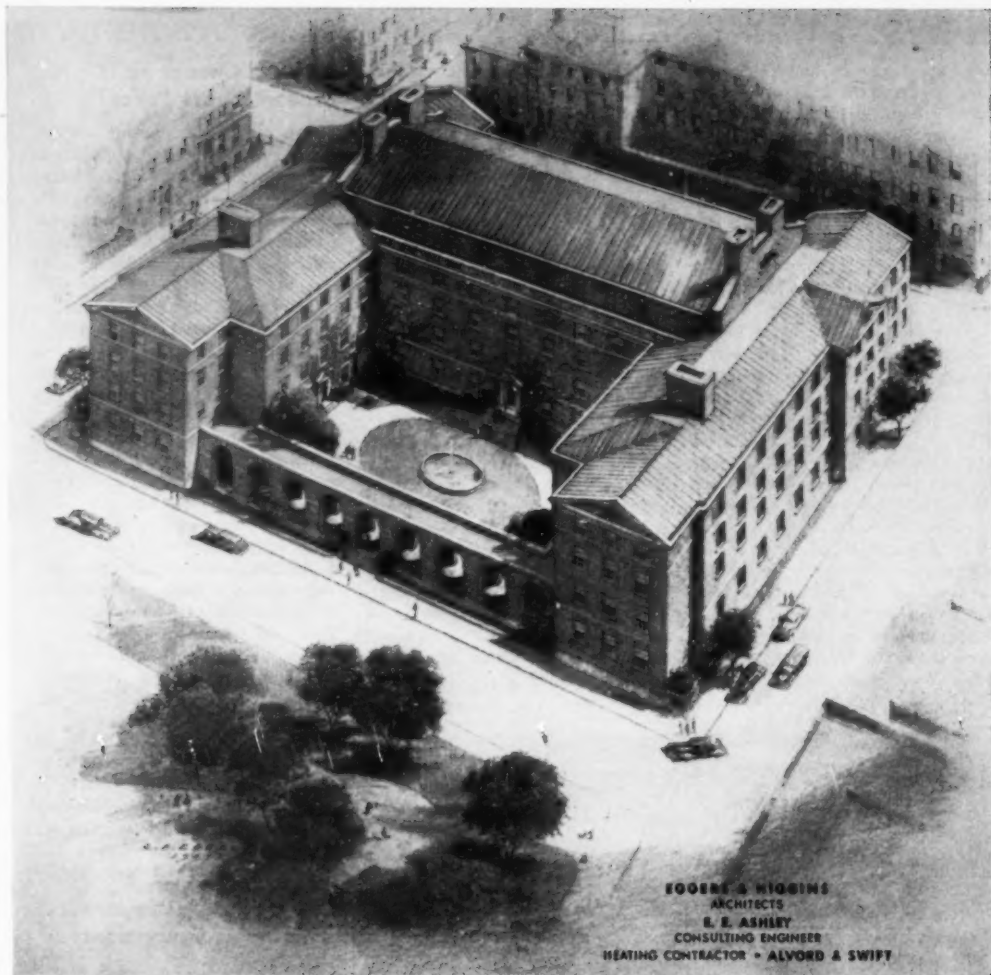
Alumni Contribute More Than \$12,000,000 to Campaign Fund

WASHINGTON, D.C.—The equivalent of the income from nearly a quarter of a billion dollars was contributed by graduates and former students of American colleges to their annual alumni funds in 1951, according to a survey completed by the American Alumni Council.

New records were established last year by alumni funds in amount contributed, number of contributors, percentage of alumni contributing, and total of all gifts made to the institutions through the alumni funds. The survey, which includes reports from 252 colleges and secondary schools, was conducted by the American Alumni Council's fund director, E. E. McQuillen of Texas A. & M., and appears in the current issue of its bi-monthly publication, the *AAC News*.

Despite the fact that more than 10 per cent of the group suspended their annual fund solicitation to conduct a major drive for capital gifts, 526,621 alumni in 1951 contributed \$12,212,967 in annual gifts. Since these were designated for current needs, the total represents the equivalent, at a 5 per cent rate of return, of an endowment increase of \$240,000,000. The grand total of all gifts made through alumni funds reached \$19,217,094 in 1951, and a vast majority of those reporting indicated that new records had been set by their alumni in the percentage of contributions and in the average size of gifts.

Setting the pace in all alumni giving in 1951 was Yale University. Surpassing the million dollar goal established for the 250th anniversary year, Yale broke all previous records on any campus with gifts totaling \$1,010,324 from 24,698 contributors. This amount, Yale maintains, is "a floor, not a ceiling."



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NEWS

ing," and hopes are high that annual alumni gifts to the university will rise steadily from that figure.

Running closely behind Yale for top honors in the amount of annual gifts to the fund was Wellesley College, with \$927,139. Other leaders in order were: Notre Dame, \$754,321; Harvard, \$615,613; Dartmouth, \$577,263; Princeton, \$529,410; Vassar, \$390,550; Stanford, \$337,638; Ohio State, \$242,790, and Chicago, \$212,000.

Dartmouth once again led in percentage of alumni contributors with 66.2 per cent. The nine other leaders in this category were: Vassar, 62.5 per cent; Mount Holyoke, 56 per cent; Regis, 54 per cent; Amherst, 52.1 per cent; Princeton, 52 per cent; Bates, 51 per cent; Saint Paul's, 50.9 per cent; New Jersey College for Women, 50 per cent, and Wellesley, 48.5 per cent.

The University of San Francisco for the second year in a row topped alumni funds throughout the country in average size of gift. A total of \$194,551 was contributed by 1566 alumni for a mark of \$135.01. Other leaders in this field were: Notre Dame, \$111.85;

Lowell Textile Institute, \$95.42; North Dakota, \$66.42; Wayland Academy, \$62.10; Norwich, \$60; Washington and Jefferson, \$57.13; Juanita, \$56.95; Case Institute, \$54.59, and Lehigh, \$51.

Harvard, with 20,918, and Ohio State, with 18,134, trailed Yale in respect to number of alumni contributors. The seven others of the "top ten" cited by the American Alumni Council were: Dartmouth, 15,417; Princeton, 12,649; New York University, 12,264; Pennsylvania, 12,007; Cornell, 11,554; Wellesley, 11,315, and Texas A. & M., 9437.

The American Alumni Council, which conducts the annual survey, includes in its membership 570 universities, colleges and secondary schools in the United States and Canada which are conducting active alumni programs. It was organized in 1913 to serve the men and women professionally engaged in alumni work "by the interchange of ideas on alumni and educational problems, by the study of practices and policies of organized alumni work, and by the appraisal of alumni achievement."

Predicts Change in Student Draft Policy

CLEVELAND.—Dr. Arthur S. Flemming, president of Ohio Wesleyan University and assistant to the Director of Defense Mobilization, stated at a convention here that the manpower pool for service in the armed forces will reach a low of 200,000 by 1954 and that "we may be in serious difficulty in 1955." Speaking before the annual conference of the American College Public Relations Association, Dr. Flemming warned that defense manpower plans must be based on an emergency of 15 years.

Dr. Flemming predicted that the deferment policy on college students could be continued to the end of the 1953 calendar year, but that after depletion of the manpower pool the policy might have to be reviewed. He pointed out, however, that the picture might change overnight as the result of international developments and that the critical point be reached sooner if the limit of 3,700,000 on the strength of the armed forces should be raised.

"We are now in a period of universal military service," he said, "and we will continue to be as long as we have to maintain a force of 3,700,000. We have to assume that we are in defense planning and mobilization emergency, which will be with us for at least 15 years."

11 Colleges Participate in Carnegie Experiment

NEW YORK CITY.—The Carnegie Foundation for the Advancement of Teaching recently announced a four-year experiment with 11 colleges and universities in the United States and Canada to improve planning for higher education through increased faculty participation. Oliver C. Carmichael, president of the foundation, announced that faculty committees were being established in the 11 institutions to "study and analyze undergraduate education in the arts and sciences, with particular reference to its purposes, organization and practices."

Under the program, committees will be established at Brown University, Carleton College, Kansas State College, Princeton University, Queens University in Ontario, Rice Institute, Stanford University, Union College at Schenectady, N.Y., University of Mis-

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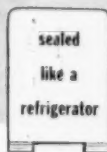
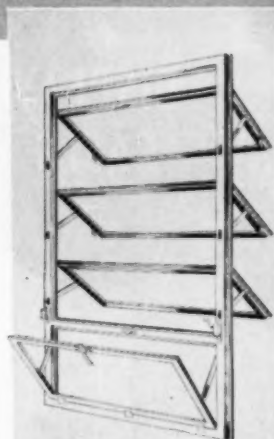
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souri, Vanderbilt University, and the College of Wooster.

According to Dr. Carmichael, the president of each institution is being asked to appoint from his faculty a "committee of educational inquiry of from three to five persons regularly engaged in classroom teaching and primarily of associate and assistant professorial rank."

The program provides that the participating institutions will relieve the committee members of some of their

duties so that they can devote time to the experiment. An initial grant of \$4000 is being made by the foundation to each institution to cover the incidental expenses of its committee.

Fund Raising Workshop at Penn State College

STATE COLLEGE, PA.—A workshop in fund raising, planned especially for college and university fund raisers and other alumni executives, will be held

at Pennsylvania State College, July 21 to August 9, under the direction of Bernard P. Taylor.

Designed primarily for fund directors, alumni secretaries, public relations officials, and other college administrative officers responsible for fund raising programs, the workshop also was held at Penn State last summer. Formerly (1948-50), it was conducted under Mr. Taylor's direction as a part of the summer program of New York University at Chautauqua Lake, N.Y.

The program in fund raising will be noncredit work offered in cooperation with the department of education at Penn State. No transcript of previous college work will be required for admission.

Robert B. Stewart Honored by V.A. for Distinguished Service

WASHINGTON, D.C.—Dr. Robert B. Stewart, vice president of Purdue University and chairman of a Veterans Administration advisory committee on veterans' training, recently was awarded a certificate of appreciation by the



Carl R. Gray Jr. presenting certificate of appreciation to Dr. Robert B. Stewart.

V.A. for his "distinguished contribution to the government, to the cause of free education, and to the benefit of veterans."

The certificate was presented to Dr. Stewart by Carl R. Gray Jr., administrator of veterans affairs, at a brief ceremony held in Mr. Gray's office in Washington.

Dr. Stewart has served as chairman of the V.A. advisory committee ever since September 1944—three months after passage of the G.I. bill. The advisory committee consists of 12 outstanding leaders in the fields of education and business. Its purpose has been to provide V.A. with counsel and advice in solving the many problems

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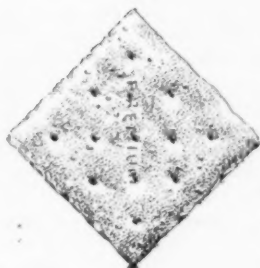


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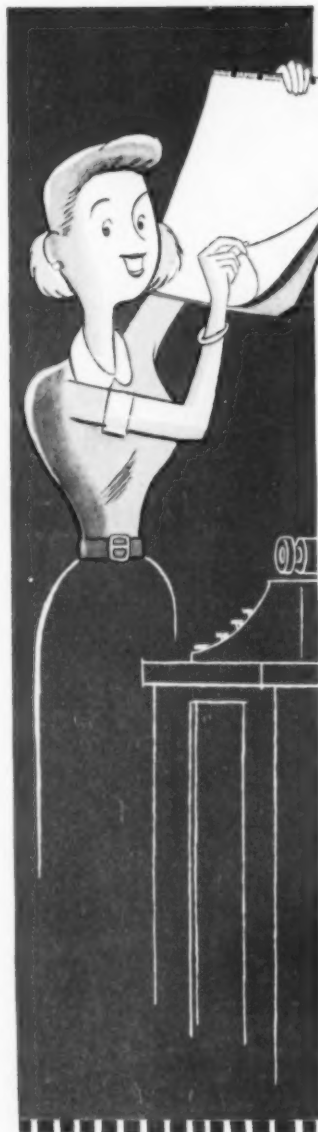
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arising out of administration of veterans' education and training programs under the G.I. bill and Public Law 16 (for disabled veterans of World War II and Korea).

Members of the advisory committee include Dr. Arthur Andrews, president of Grand Rapids Junior College, Grand Rapids, Mich.; R. W. Kent, director of the Essex County Vocational School, Newark, N.J.; Dr. Rufus C. Harris, president of Tulane University, New Orleans; Dr. Robert Sproul, president of the University of California in Berkeley; Dr. Roscoe L. West, president of New Jersey State Teachers College, Trenton.

Also, Walter D. Fuller, president of the Curtis Publishing Company, Philadelphia; Dr. Arthur Hauck, president of the University of Maine, Orono; Dr. Leonard Carmichael, president of Tufts College, Medford, Mass.; Dr. Robert E. Commack, director of vocational education for Montgomery, Ala.; Dr. Earl A. Dimmick, superintendent of public schools, Pittsburgh, and Hiram W. Rasely, executive vice president, Burdette College, Boston.

Gregg College Becomes Division of N.U.

CHICAGO.—The Gregg College, "birthplace" of the Gregg shorthand system, has been transferred to Northwestern University as a gift and will become a division of the university on June 1 of this year, according to an announcement made April 10 by Dr. J. Roscoe Miller, president of the university, and Curtis G. Benjamin, president of the McGraw-Hill Book Company, owner of the college.

Since its founding, the Gregg College has been located in Chicago's Loop district, where thousands of men and women were trained for business and teaching careers through day and evening classes. Shortly after Mr. Gregg's death in 1948, the college, along with the Gregg Publishing Company, was purchased by the McGraw-Hill Book Company, New York.

After June 1 the college will be known as the Gregg Division of the School of Commerce of Northwestern University and will be situated on its Chicago campus. Both day and evening classes in secretarial science and shorthand reporting will be offered, an expansion of the programs now being given by the university.

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NEWS.....

University of Rochester to Merge Its Women's and Men's Colleges

ROCHESTER, N.Y.—The University of Rochester announced April 29 that it will abandon its traditional policy of coordinate undergraduate education and will merge its College for Women and College for Men on one campus as a coeducational College of Arts and Science.


Under the university's long established coordinate system, the 101 year old institution has had separate campuses and instruction for its men's and women's colleges for many years. The principal considerations in the decision to combine them on one campus were educational and financial.

"By concentrating the College of Arts and Science faculty, administration, facilities and personnel on one location, the university can make far more effective use of all its resources," stated Dr. Cornelis W. de Kiewiet, president of the university. "In addition to greatly strengthening the educational program, the unification will lead to much greater efficiency and economy in the operation of the college than has been possible under the two-campus system, which has necessitated unavoidable and substantial duplication of maintenance and instructional costs."

The university's annual operating costs have mounted sharply in the last 10 years, rising from \$4,774,000 in the fiscal year 1940-41 to nearly \$15,000,000 last year. The more than \$8,000,000 annual increase is attributed mainly to national inflationary trends.

To effect the merger, the university will erect new women's residence and social units and other necessary buildings at the attractive, 85 acre River Campus of the men's college, built in 1930 on the banks of the Genesee River 4 miles distant from the women's campus. Cost of the new construction is estimated at more than \$6,000,000. The university must look to its friends and supporters for new funds to finance the project, Dr. de Kiewiet said. Work on the new buildings may possibly begin within a year, and the transition period will be made as brief as possible.

The women's college will continue to function at the historic Prince Street Campus until the new facilities are




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NEWS

available at the River Campus. No decision has been made as to the disposition of most of the 18 buildings of the women's college, which constituted the university's entire plant from 1861 until 1930. With the completion of the River Campus of the men's college in 1930, the women's college took complete possession of the original 30 acre university campus. The university was founded in 1850 and for the first 11 years operated in a converted hotel in downtown Rochester until it acquired its own campus and erected new buildings.

The only alternative to the merger, Dr. de Kiewiet said, was to develop the women's college as a wholly independent, self-sufficient college providing an expanded educational program, by engaging additional faculty, and building extensive new plant facilities, including urgently needed new dormitories, replacing the women's library built in 1874, and a new physical educational building. These costs would amount to upwards of \$4,000,000, plus additional large sums to finance new programs of study to meet the increasing need for scientific and technological training for women. These factors, and the increasing national trend toward coeducation, made the unification program the most valid choice, he said.

Visibility Impaired by Tinted Windshields

BERKELEY, CALIF.—Administrators of colleges or universities who are responsible for purchase of institutionally owned automobiles may be interested in a preliminary report by the University of California's Institute of Transportation on the comparative visibility of tinted windshields.

The report by the institute revealed that ordinary windshields permit a significantly greater degree of visibility. The study was based on tests in which observers were asked to spot and identify a dummy pedestrian and panels, through a tinted windshield and through an ordinary one.

"In a total of 50 observations by five observers the dummy was seen about 40 feet farther away and the other objects about 100 feet farther away when viewed through the ordinary windshield," the report by the institute concluded.

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NEWS.

V.A. Hospitals Use Penn State Recipes

STATE COLLEGE, PA.—Recipes developed and tested for use in dining halls at the Pennsylvania State College will be used in the 152 veterans' hospitals throughout the country.

Mildred A. Baker, director of food service at Penn State, reported recently that the Veterans Administration, seeking standard recipes that can be used in all hospital units to produce quality

foods, has completed a contract with the college to provide the tested and standardized recipes.

As a part of the food service on the campus, an experimental kitchen is used to test and standardize recipes so that the same identical product can be produced in all campus dining halls by all cooks.

Cooperation with the Veterans Administration means that the tested recipes will be made available to the hospitals and thus will enable them to

produce the same products. Already an angel food cake to be made in 10, 25 or 100 pound batches has been tested and accepted by the hospitals.

While research, except to improve foods served in dining halls, is not a function of the food service department at Penn State, the arrangement will make possible acceleration of the project to test and standardize all recipes used.

Most Ford Foundation Grants of \$22,331,736 in 1951 Go to Education

PASADENA, CALIF.—The \$500,000,000 Ford Foundation completed its first full year of operation with a financial report that revealed that during the year it had allocated 37 grants totaling \$22,331,736. Most of the 37 grants made in 1951 were allocated to education.

The largest sum, \$7,154,000, went to the Fund for the Advancement of Education, an independent offspring of the Ford Foundation. It is primarily concerned with scholarships and other projects in schools and colleges in this country.

In education, the emphasis was on projects to develop intellectual capacity and independent judgment rather than technical, specialized or professional proficiency. Development of more mature programs was stressed in radio and television as was evidenced by a grant of \$1,200,000 for a radio-television workshop.

In the area of world peace, the emphasis by the foundation was put on helping critical areas to raise living standards, on bettering international understanding, reducing tensions, and supporting international agencies.

Substantial grants made by the foundation included the following:

American Friends Service Committee, Inc.: \$1,000,000 for programs to ease world tensions. Free University of Berlin, \$1,309,500 for buildings, exchange of professors, and extension service. The government of India received \$1,200,000 to assist in establishing training centers and in developing rural villages. The government of Pakistan received \$1,100,000 for educational purposes. A grant of \$90,000 was made for an exchange of professors between the University of Frankfurt, Germany, and the University of Chicago.

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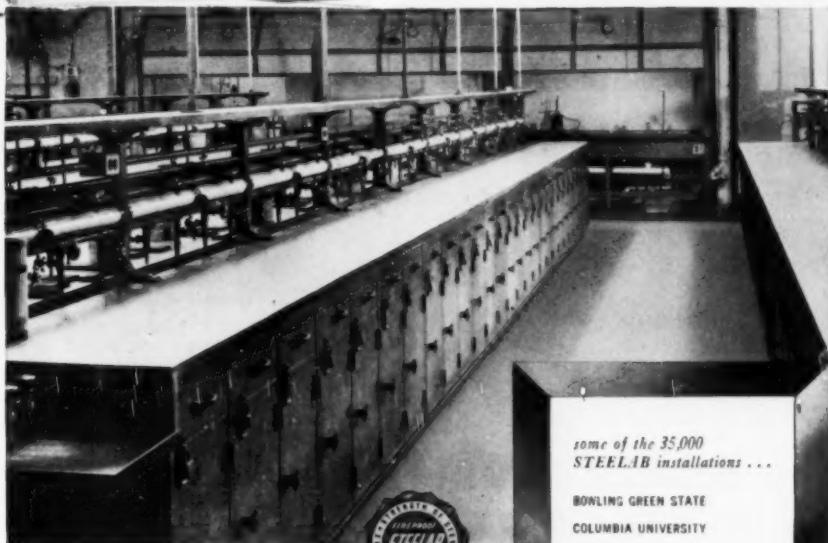
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NEWS

GIFTS AND REQUESTS

• **Mount Hermon School**, East Northfield, Mass., received a \$200,000 grant from the Charles Hayden Foundation for a new residence hall for boys. The school is now in the process of conducting a development fund program for the purpose of raising \$3,000,000 in gifts and bequests.

• **Grove City College**, Grove City, Pa., has received a conditional grant of \$250,000 from the Buhl Foundation

of Pittsburgh provided a similar amount is raised by the college. The funds will be used for the construction of a new library.

• **Dartmouth College Alumni Fund** announced receipt of a total of \$577,262 for the 1951 fund. All except \$75,000 of the total was to be applied to current operating expenses of the college, according to John Sloan Dickey, president of Dartmouth.

• **University of Notre Dame** recently

received a gift of old paintings and tapestries valued at \$1,200,000 from Mrs. Fred J. Fisher, widow of the founder of the Fisher Body Company of Detroit.

• **Harvard University** reported receipt of \$2,838,601 in gifts during the quarter ending June 30. Gifts for capital totaled \$1,755,536, and for current use, \$1,083,065.

• **Lafayette College** alumni in their fund campaign raised \$122,648, a record amount for the alumni fund effort during past years. The fund this year has been allocated for general operations at the Easton, Pa., institution.

• **Princeton University** recently announced receipt of a gift of \$180,000 from the estate of Isabel G. Dod of Boston for the establishment of the Samuel Bayard Dod scholarship fund. The alumni office also announced reaching a total of \$631,860 from alumni in 1951, which topped all previous efforts. President Harold W. Dodds also announced the receipt of a gift of \$60,000 to the industrial relations section of Princeton University from John D. Rockefeller III.

• **Massachusetts Institute of Technology** received a gift of \$1,000,000 from the Alfred P. Sloan Foundation for the new school of industrial management which will open at M.I.T. next fall.

• **Bates College**, Lewiston, Me., recently announced receipt of four gifts totaling \$58,000. Of this amount \$12,000 is for scholarship endowment, \$8000 for a student loan fund, another \$8000 for general endowment, and a final gift of \$30,000 for a projected fine arts and music building.

• The board of education of Dearborn, Mich., has accepted a gift of \$1,000,000 from the assets of the 36 year old Henry Ford Trade School for the purpose of establishing the Henry Ford Community College of Dearborn.

• **Centenary Junior College**, Hacketts-town, N.J., announced receipt of a gift of \$25,000 toward the cost of a new recreational building. The gift was received from John M. Reeves of Summit, N.J.

• **Evansville College**, Evansville, Ind., announced the gift of a carillon from



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NEWS.

Mr. and Mrs. Alexander W. Hutchings to be installed in the tower of the administration building. It will be a memorial to their son, Martin, who was killed in an automobile accident last June while a student at Evansville College.

• **Smith College**, Northampton, Mass., announced receipt of a gift of \$50,000 from the Carnegie Corporation to develop and expand interdepartmental courses at the college. The corporation made a similar gift last year for the new program, which is scheduled to begin in the fall of 1952.

• **City College of New York Alumni Association** has announced a fund raising campaign to obtain \$3,000,000 for construction of a new student activities center at the college. The 135 extracurricular organizations at the college now use regular classrooms for meetings.

• **Case Institute of Technology**, Cleveland, announced the establishment of a \$2650 student fellowship as the result of a grant from the F. W. Wakefield Brass Company of Vermilion, Ohio. The company also established a \$10,000 research fund at M.I.T.

NAMES IN THE NEWS

Irwin K. French, business manager of Middlebury College, Middlebury, Vt., on July 1 will become business



Irwin K. French



Donald W. Height

manager of Wellesley College, Wellesley, Mass., according to a recent announcement by **President Margaret Clapp**. He will succeed **Donald W. Height**, who will become assistant treasurer and controller of Wellesley.

Dr. Frederic B. Irvin, treasurer of the United Lutheran Church in India, recently cabled acceptance of his appointment as president of Thiel College, Greenville, Pa. He will assume his new duties October 1.

Dr. William P. Hieronymus, president of Midland College, Fremont, Neb., resigned recently to accept appointment as professor of secondary education at Wagner College, Staten Island, N.Y. He will go to Wagner on September 1.

Dr. T. S. Painter, president of the University of Texas, resigned recently to return to his former post as professor of zoology at the university. Dr. Painter was appointed temporary president in 1944 when the regents ousted **Dr. Homer P. Rainey**. Dr. Rainey now is president of Stephens College, Columbia, Mo.

Frank Burrus Weir, former chairman of the faculty and administrative assistant to the president of Palos Verdes College, Rolling Hills, Calif., has been named vice president of the college. He first joined the staff as art instructor in 1948.



Frank B. Weir

Dr. James Stacy Coles, chemist and atomic bomb research expert and dean of the college at Brown University, Providence, R. I., has been named to succeed **Dr. Kenneth C. M. Sills** as president of Bowdoin College, Brunswick, Me. Dr. Sills will retire in June after 34 years as president of Bowdoin. Dr. Coles, at 38 years of age, will be

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by Today's Standards

The modern answer for the improvement of "Visual Environment" of youngsters in the classroom, frequently referred to as the "Coordinated Classroom"—is engineered co-ordination of light intensity from outside and inside, paint (walls, ceilings, floors), desks (both for color and angle of use)—down to the "color" of the blackboards.

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The writing surface of Rite Green Chalkboard by TYLAC, under exhaustive G. E.'s Nela Park laboratory tests, shows a gloss test of 3 to 4 on a Photovolt "C" unit. Reflectivity of only 12% is shown on a Baumgartner Reflectometer. Even after continued writing and erasing it shows only 15% to 16% reflectivity. It is considered (for proper classroom use) that reflectivity should not be over 20%.



Yes, TYLAC Rite Green is the one correct shade that assures **GREATEST READABILITY** and **LOWEST REFLECTIVITY**. This is **MOST** important for the elimination of students' eye strain.

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Bring to Simmons your plans for furnishing new rooms or modernizing old ones! Simmons' complete line of fireproof steel furniture in 20 color and wood grain finishes, offers you far more opportunity to select equipment for comfort, color harmony, maximum utility, long life and economy.

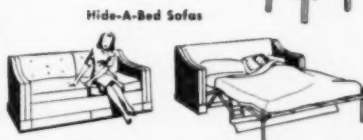
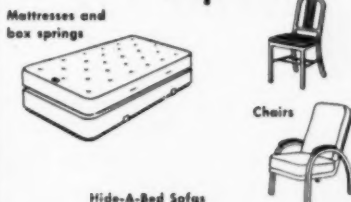
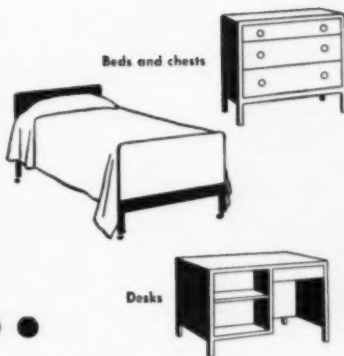
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NEWS.

the ninth president in Bowdoin's 150 year history when he takes over next October.



Raymond A. Dault

Raymond A. Dault, assistant manager of the Indiana Memorial Union at Indiana University in Bloomington, has been named manager of the new college union and food service building to be opened early next year at the university's medical center in Indianapolis.

Joseph C. Robert, professor of history at Duke University, has been named to the presidency of Coker College, Hartsville, S.C. He will take office on August 1, succeeding **Donald C. Agnew**.

Dr. David Marion Delo, executive director of the American Geological Institute and executive secretary of the geological and geographical division of the National Research Council, has been elected to the presidency of Wagner College, Staten Island, N.Y. He succeeds **Walter C. Langsam**.

Robert A. McMillan, former staff member of the Teachers Insurance and Annuity Association of America, has returned to the organization as assistant secretary, following his second tour of military service as lieutenant in the finance corps of the U.S. Army. He will plan the coordination of office procedures for T.I.A.A. in connection with the College Retirement Equities Fund now being organized.



R. A. McMillan

Stewart S. Howe, director of public relations for the National Sanitation Foundation at Ann Arbor, Mich., has been named vice president in charge of development and public relations at Illinois Institute of Technology, according to a recent announcement by President **John T. Rettaliata**.

Howard F. Smiley, assistant business manager of Wheaton College, Wheaton, Ill., resigned on April 1 to become assistant general manager and director of research for the Hitchcock Publishing Company, Wheaton.

Hugh F. McKean, acting president of Rollins College, Winter Park, Fla., has been named president of the college. He has been acting president since May 1951, when he succeeded **Dr. Paul A. Wagner**.

Fred Tracht, organizer and first president of the National Association of College Stores and, until retirement, manager of the University of Chicago bookstore, died recently at 76 years of age. His son, **Mel Tracht**, is assistant business manager of Illinois Institute of Technology.

Ernest Wilson Riggs, president emeritus of Anatolia College, Thessaloniki, Greece, died recently at 70 years of age in Dallas, Tex., while on a speaking tour. Elected president of the college in 1933, he was active in advancing American education and welfare in Greece and Turkey until his retirement from that post in 1950.

Dr. Paul Klapper, organizer and president of Queens College in New York, died recently at 66 years of age from a heart ailment. He had been teacher and administrator in the city colleges of New York City for more than 40 years.

LOOKING FOR SOMEONE?

Someone to fill a vacancy in your staff—a Business Manager—
Superintendent of Buildings and Grounds—Purchasing Agent—
Director of Food Service and Dormitories?

Or maybe you are thinking about making a change.

If so, consider placing a "Classified Advertisement" in the next issue of College and University Business.

It costs but 10¢ a word (minimum charge of \$2.50) to place your story before the administrative officers of colleges and universities in this country and Canada.

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INDIVIDUALIZED SERVICE

Administrators find the Crotty

system highly satisfactory, not only in the way it relieves them of tedious detail, but also in the way it guards against monotony. There is no "master" menu. Crotty works closely with local preferences, serving dishes students favor. What's more, because it is a large organization with many contacts and facilities, it can constantly feed in new and fresh ideas to spark up menus. Consequently, both the student body and administration are kept satisfied, filling Crotty Brothers' aim: to keep *everybody* happy.

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Food buying in itself is a job that can make or break a budget. Getting the right quantity at the right price is essential. Food storage, too, requires an expert . . . if waste is to be overcome. And as for serving dishes that students clamor for . . . one needs only to remember that the school competes with mother on this score!

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President: Jamie R. Anthony, Georgia Institute of Technology; vice president: James M. Miller, University of California, Berkeley; secretary-treasurer: Irwin K. French, Middlebury College.

Association of College and University Business Officers

Central Association

President: Bruce Pollock, Carlton College; secretary-treasurer: C. C. De Long, University of Illinois.

Eastern Association

President: Charles H. Wheeler III, University of Richmond; secretary-treasurer: Irwin K. French, Middlebury College.
Convention: Nov. 30-Dec. 2, Chalfonts-Haddon Hall, Atlantic City, N.J.

Southern Association

President: Frank D. Peterson, University of Kentucky; secretary-treasurer: Gerald D. Henderson, Vanderbilt University.

American Association

President: Glenwood E. Jones, Shaw University; secretary: L. H. Foster Jr., Tuskegee Institute.

Western Association

President: Nelson Wahlstrom, University of Washington; secretary-treasurer: James M. Miller, University of California, Berkeley.

Association of Physical Plant Administrators of Universities and Colleges

President: Walter W. Kraft, University of Oklahoma; secretary-treasurer: A. F. Gallistel, University of Wisconsin.

American College Public Relations Association

President: Edward P. Vonderhaar, Xavier University, Cincinnati.
Convention: 1953, Salt Lake City.

Association of College Unions

President: Charles D. Owens, University of Washington; secretary-treasurer: Edgar A. Whiting, Cornell University; editor of publication: Porter Butts, University of Wisconsin.

College and University Personnel Association

President: B. W. Ames, University of Florida; secretary-treasurer: Fred Doderer, State University of Iowa.
Convention: July 20-23, Minneapolis.

National Association of College Stores

President: George Racine, Northwestern University; executive secretary: Russell Reynolds, Box 58, 33 West College Street, Oberlin, Ohio.

National Association of Educational Buyers

President: Kermit A. Jacobson, California Institute of Technology; executive secretary: Bert C. Ahrens, 1461 Franklin Ave., Garden City, N.Y.

National Association of College and University Housing Officers

President: S. Earl Thompson, University of Illinois; vice president: Kenneth D. Lawson, Michigan State College; secretary: Ruth Donnelly, University of California.
Convention: August 4-6, University of California, Berkeley.

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Dietitian—Summer work in camp, resort, or school by college dietitian; experienced in cafeteria and party dining room service, planning and purchasing; middle age; available June 15. Write Box CW 98, COLLEGE AND UNIVERSITY BUSINESS.

Superintendent or Assistant of Building and Grounds—5 years' experience New York metropolitan college; available immediately; college education; prefers South. Write Box CW 97, COLLEGE AND UNIVERSITY BUSINESS.

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Dormitory House Mother—For small Engineering College close to New York City; the work will require a woman of maturity who is a

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Dietitian—For Boys' Dormitory, small Ohio college; position available immediately. Write Box CO 74, COLLEGE AND UNIVERSITY BUSINESS.

Manager of Dining Halls and Student Union—Small Massachusetts college; operation of new freshmen commons student union building; to participate planning construction, position available immediately; experience required. Write Box CO 68, COLLEGE AND UNIVERSITY BUSINESS.

Plant Engineer—Permanent position; midwest small college; to supervise high pressure central heating plant and do mechanical, electrical, and plumbing maintenance; approximately 15 buildings; send full information regarding age, education, experience, salary expected in first letter. Write Box CO 67, COLLEGE AND UNIVERSITY BUSINESS.

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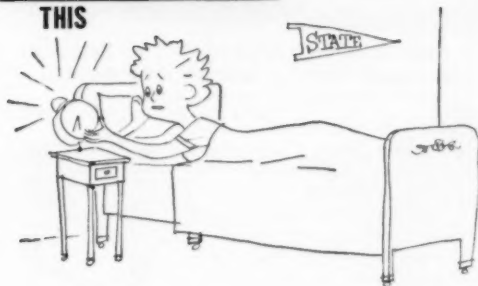
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The Case of the 11 o'clock Scholar

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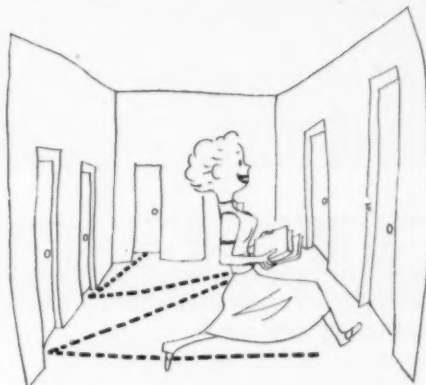


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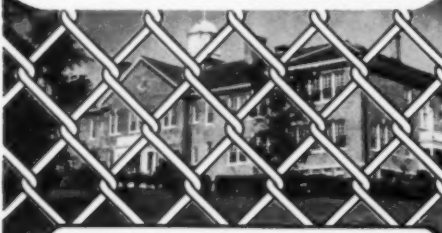
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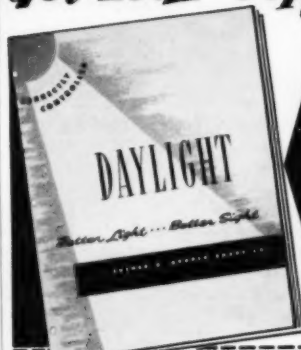
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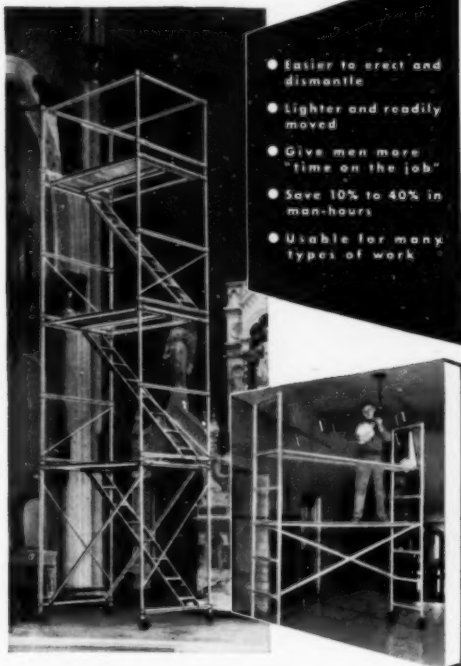
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WHAT'S NEW

May 1952

Edited by Bessie Covert

TO HELP you get more information quickly on the new products described in this section, we have provided the postage paid card opposite page 92. Just circle the key numbers on the card which correspond with the numbers at the close of each descriptive item in which you are interested. COLLEGE and UNIVERSITY BUSINESS will send your requests to the manufacturers. If you wish other product information, just write us and we shall make every effort to supply it.

Ditto Office Duplicator



The new Ditto D-45 Office Duplicator is streamlined in design for greater efficiency and operator comfort. The new design is the result of motion studies in the field which indicate that greater operator comfort and convenience result in greater efficiency.

The new machine is five inches lower than its predecessor and the stand is six inches deeper. The operator thus sits naturally at the machine with the finished copy tray within easy reach and the finished copies directly in line with her gaze for constant, easy check on copy production. In addition, the lowered, lengthened lines of the new D-45 give it a more attractive appearance. Ditto, Inc., Dept. CUB, 2243 W. Harrison St., Chicago 12. (Key No. 674)

Anti-Slip Wax

Developed to fill the need for an anti-slip wax with long wearing qualities and one which resists scuffing, Anti-Slip Cosmolite Wax contains yellow carnauba wax with colloidal silica as the anti-slip ingredient. It has been listed by Underwriters' Laboratories, according to the manufacturer.

Anti-slip Cosmolite Wax is a self-shining product and dries bright with a hard, wear-resistant surface. It does not require frequent buffing to renew the luster, is water resistant and does not water spot. It is described as safe for application on all types of flooring. Huntington Laboratories, Inc., Dept. CUB, Huntington, Ind. (Key No. 675)

Film-Free Glass Suds

Fame is a new long-lasting suds for the hand washing of dishes, glasses, silver, pots and pans. It is soothing to the skin, has fast washing action and drains from glasses with amazing speed, leaving film-free surfaces. Fame is light blue in color and contains one of the newly perfected Wyandotte Pluronic. It is also inhibited against darkening aluminum in normal use solutions. Wyandotte Chemicals Corp., Dept. CUB, Wyandotte, Mich. (Key No. 676)

Public Address Amplifier

The new Knight 80-watt Public Address Amplifier is especially designed for outdoor stadium use, large auditoriums and sound distribution systems for large



schools. It overcomes high noise levels and covers up to 260,000 square feet and 40,000 people when used with proper accessories such as trumpet type speakers. Operation is from 110-130 volts, 50-60 cycle A.C. Allied Radio Corp., Dept. CUB, 833 W. Jackson Blvd., Chicago 7. (Key No. 677)

Textolite Plastic Desk Top

A new grade of tough G-E Textolite plastics surfacing has been especially developed for desk tops. It is designed to reduce eyestrain and improve illumination and has a light reflectance value of 38 per cent. This has been found ideal to reduce glare and obtain high lighting efficiency. Known as G-E Textolite, 10580, the new material is being produced in a soft shade of green which meets standards prescribed in "American Standard Practice for School Lighting."

Desk tops of the new G-E Textolite require practically no maintenance. They are immune to oils, inks and paints, and

(Continued on page 80)

resist flame and scratching. The desks can be easily and quickly cleaned by wiping with a damp cloth. No polishing is necessary. The new product can be used to refinish old desks or to protect new ones. General Electric Co., Dept. CUB, Pittsfield, Mass. (Key No. 678)

Water Pick-Up Machine

Used in combination with an electric scrubbing machine, the new Water Pick-Up Machine simplifies maintenance of large floor areas. Designed to pick up or wet-vacuum large areas of water covered floors, the unit has a powerful 1 hp motor, large capacity tank and wide, heavy duty squeegee. It is mounted as an integral unit on a sturdy three wheeled dolly. A steady, normal forward pace guides the machine which quickly picks up suds and dirty water, leaving a clean, dry path 29 inches wide.

The machine has a cast aluminum pick-up unit with rubber squeegee blades, bumper guard wheels to protect walls and furniture, heavy rubber covered truck wheels and ball bearing swivel casters for easy rolling and floor protection, and a special motor cover to deaden sound. The 15 gallon capacity tank has a rustproof porcelain interior. The water pick-up is raised from the floor when not in use by a squeegee lift



control on the handle. American Floor Surfacing Machine Co., Dept. CUB, 548 S. St. Clair St., Toledo 3, Ohio. (Key No. 679)

WHAT'S NEW . . .

Hot Food Table



The new Seco-Matic Electric "Dry-or-Moist" Hot Food Tables have regulated, circulating heat for each separate top opening. The unit is available in 68 heavy duty models, with two to seven top openings, for gas or electricity, with open, semi-enclosed or enclosed base. Styles are available made of stainless steel, or of galvanized iron, all with stainless steel tops. Either dry or moist heat is provided simply by adding or removing small quantities of water and the units are constructed to operate without danger of burning out the concealed heating units.

The new Hot Food Tables are designed for easy cleaning with one piece die-stamped stainless steel top, eliminating crevices and cracks. The one

piece die-stamped Seco-Matic heating receptacles have smooth rounded corners and are so designed that food cannot spill into the heating units. Individual dial settings for each independent sectional top opening permits accurate, fast temperatures to reduce food waste. The units are insulated to assure even temperatures surrounding the containers and to prevent heat loss. **Southern Equipment Co., Dept. CUB, 5017 E. 38th St., St. Louis 16, Mo. (Key No. 680)**

Food Packaging

The complete line of Gumpert specialty food items for the institutional market has been re-packaged. The new improved package will be in Gumpert's standard orange and black colors for both the cardboard cartons and the cans. The new packages offer added protection during shipping and they are easy to store and pack. Product identification is made easier with a new large, clearly printed label. Easy-to-read directions are printed on every package. More and newer recipes are printed on the new labels. The cans are hermetically sealed and some cartons are individually wrapped in cellophane to ensure freshness. **S. Gumpert Co., Inc., Dept. CUB, 812 Jersey Ave., Jersey City 2, N. J. (Key No. 681)**

(Continued on page 82)

Barcol Wardrobe

The new vertical opening Barcol Wardrobe saves space in classroom wardrobes. The entire wardrobe is opened in one easy operation, leaving a completely unobstructed entrance. Only 24 inches is required for wardrobe depth. Door interference with clothing and in the aisle is eliminated.

The door is accurately counterbalanced and mounted on ball bearing rollers. It is in two sections, for low headroom requirements, and both sections move together and reach the open position at the same time. Barcol Wardrobes can be equipped with chalkboard, cork bulletin board or a combination. The Wardrobes are available in 10, 12 or



15 feet widths. **Barber-Colman Co., Dept. CUB, Rockford, Ill. (Key No. 682)**

is this important?

JOHN E. SJÖSTRÖM COMPANY
1727 N. Tenth Street, Philadelphia 22, Pa.

Well, if you're planning to purchase library furniture, it *certainly* is.

Because, although you may not have realized it, each of those little drawings represents an important construction feature of our "New Life" Library Furniture.

There are lots more of them, too—and you should become thoroughly familiar with all.

Because, only then can you *properly* analyze, compare, and evaluate, and determine precisely what you want in *your* library furniture.

Construction is just one of *many* important elements you will want to *investigate carefully*. Company policy, furniture design and quality are important elements, too. Our Catalog L-50, available upon request, will give you some details. Our field representative can give you many more. Request that we have him call.

MANUFACTURERS OF

New Life

LIBRARY FURNITURE

Announcing the New Burroughs Sensimatic



Series 300

Latest, most versatile of the revolutionary Sensimatic Accounting Machines

Here is an amazing new model of a business tool that meets squarely the need of business today to get more things done in less time. On every count—*speed, flexibility, ease of operation, range of application, dependability and price*—the Burroughs Sensimatic 300 can stand the most critical comparison.

Because the Sensimatic 300 remembers as many as 11 different figure totals at once, it's equipped to handle the most complex accounting operation facing your business. Yet this machine is so amazingly versatile that it will handle even the simple applications profitably. It's ready for *any* job at the turn of the job selector knob. And, with all its exclusive features, the Sensimatic is compact, easy to operate, and economical to buy.

Call your Burroughs man today. Ask to see a demonstration of the superb Burroughs Sensimatic 300. You'll find the Burroughs office nearest you listed in the yellow pages of your telephone book. Burroughs Adding Machine Company, Detroit 32, Michigan.

WHEREVER THERE'S BUSINESS THERE'S

Burroughs



Why the Sensimatic is more versatile . . .

The sense plate, or "mechanical brain" directs the Sensimatic *automatically* through every figuring operation and carriage movement. One sense plate will control any four accounting operations—and with a turn of the job-selector knob the Sensimatic moves immediately into the next posting operation. Any number of sense plates can be used—so there's no limit to the number of accounting jobs the Sensimatic will do.



Why the Sensimatic is faster . . . Engineered for fast, *continuous* operation, the Sensimatic posts faster because it computes *while in motion*. The direct drive mechanism of the Sensimatic starts its automatic functions more quickly and surely—eliminates waste motion. And the operator has less to do.

Why the Sensimatic is easier to operate . . . Every operator function has been simplified to require minimum effort. Forms are easily and quickly inserted and aligned—and the work is completely visible. After a brief period of instruction anyone can operate a Sensimatic.

Why the Sensimatic costs less . . . Burroughs know-how has cut costs through ingenious simplification of moving parts, and compact design. Sensimatics are priced hundreds of dollars less than you might expect to pay for such widely useful machines.

2 other great Sensimatics to help
America get things done!

Series 100

Sensimatic 100 with 2 totals

Series 200

Sensimatic 200 with 5 totals

WHAT'S NEW ...

"Instan-Form" Telescriber



Business forms can now be used in instant communication with the newly developed TelAutograph "Instan-Form" Telescriber. Business forms filled in on a transmitting "Instan-Form" telescriber are reproduced immediately on a similar form at one or many remotely located telescribers. Use of the business forms eliminates the need for multiple carbon copies and their delivery to departments or offices. The system also provides immediate delivery of the message since no time is elapsed between originating and receiving the message. If needed forms do not fit the TelAutograph, a specially trained staff will redesign forms for the purpose. Forms are filled in by

hand on the sending machine and immediately reproduced on the receiving machine or machines in as many areas as required. **TelAutograph Corp., Dept. CUB, 16 W. 61st St., New York 23. (Key No. 683)**

Improved Lok-Gyde

Maintenance costs are cut and lamps are prevented from falling with the new improved Edison Lok-Gyde for fluorescent lamps. The device channels the terminal pins into the sockets in relamping, making lamp replacements possible with one hand, then locks the lamps in the sockets. Thus time is reduced in lamp replacement and the danger of lamps falling when dislodged by vibration or other causes is eliminated. The attachment is quickly slipped over any standard 15 to 40 watt fluorescent socket without tools, and it becomes a permanent part of the fixture. **Edison Electrical Co., Dept. CUB, 355 Weybosset St., Providence 3, R. I. (Key No. 684)**

Dupli-Kit

Two new machines and all supplies required to print and address postcards, announcements and forms are contained in a handy carrying case about the size

of an ordinary tackle box. Called the Dupli-Kit, the unit provides printing and addressing facilities for fast, inexpensive operation.

The Portable Printer accommodates a low cost stencil on which messages are typed, written or drawn. The Portable Addresser utilizes a small roll of paper on which up to 250 addresses are typed. Cards or envelopes are addressed with a single, one-hand motion and each roll can be used for 100 or more impressions. Both Printer and Addresser have gray hammerloid finish and fit into the case



with the supplies. **The Heyer Corp., Dept. CUB, 1850 S. Kostner Ave., Chicago 23. (Key No. 685)**

(Continued on page 84)

That Wayne Gymstand Really Gets Around

WAYNE IRON WORKS

146 N. PEMBROKE AVE.
WAYNE, PENNA.

REPRESENTATIVES IN
42 CITIES



"Wayne Stands
for Safety"

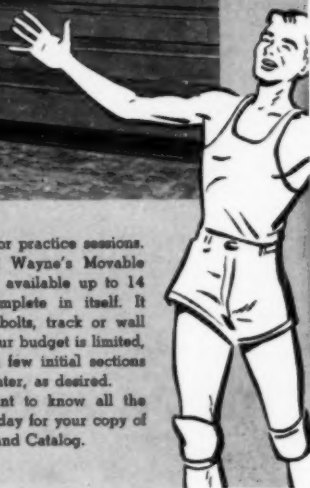
You'll like the adaptability of Wayne's Movable Rolling Gymstand . . . for each section can be quickly and easily moved to any desired location on the same floor level. Rubber wheels on the trucks give full protection to varnished gym floors.

Too, you'll appreciate the space-saving utility these stands provide. Like the Wayne fixed type gymstand, when they're in closed position, you have the extra floor space that's needed for

large gym classes or practice sessions.

Each section of Wayne's Movable Rolling Gymstand, available up to 14 rows deep, is complete in itself. It requires no floor bolts, track or wall fixtures. And, if your budget is limited, you can start with few initial sections and add to them later, as desired.

Since you'll want to know all the details, write us today for your copy of the Wayne Gymstand Catalog.



*Experience with
SEAL-O-SAN made
us request its use
on our new floors."



DAVIS AND WILSON ARCHITECTS



"in the new North Platte, Neb., Gyms,
we specified that **SEAL-O-SAN** be used."

Edo Clakes Superintendent

NORTH PLATTE schoolmen know from experience which gym floor finish wears and looks best in their schools. That's why they specified Seal-O-San Gym Floor Finish when they planned two new gyms recently. Their gyms are used as auditoriums, dance-floors and for other school events which punish the finish. They know that they can depend on Seal-O-San for a fine finish, low maintenance costs and long life—even on multi-purpose floors which get constant use! Investigate Seal-O-San now. Write today for complete specifications. Huntington specialists will consult with you at your request.

SEAL-O-SAN
GYM FLOOR FINISH

HUNTINGTON LABORATORIES, INC.

Huntington, Indiana



Toronto, Ontario

☐ Send helpful folder, "Key to Gym Floor Finishing."

NAME _____

TITLE _____

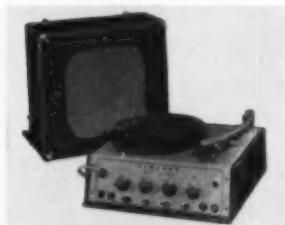
ADDRESS _____

CITY _____

STATE _____

WHAT'S NEW . . .

Transcription Player



A new variable speed motor is featured in the Model TR-16AM Newcomb Portable Transcription Player. The unit combines a 10 watt, variable speed, portable player and public address unit that plays all records, any speed and any size up to 17 1/4 inches. In addition to the three basic speeds, the newly developed motor has a special control to vary speeds as desired. The 10 inch two pound turntable acts as a flywheel and contributes to maximum stability of speed. Individual bass and treble tone controls, 12 inch Alnico dynamic speaker, G-E dual needle variable reluctance magnetic pickup, and the Newcomb scratch suppressor are other features of the new model. Newcomb Audio Products Co., Dept. CUB, 6824 Lexington Ave., Hollywood 38, Calif. (Key No. 686)

Rubber Door Silencers

Noisy doors and drawers can be silenced with the new Pneumatic Rubber Silencers recently introduced. Two types are available: one for metal door frames and the other for wood door frames. Made of live, molded rubber, the silencers are installed on the vertical stop strip of the door, one near the top, one at the bottom and one above the latch. They are easily applied and inconspicuous since they are made in black and in white to harmonize with dark or light finish. In closing, the door compresses the rubber and forms an air pocket which gives added cushioning. The device cannot work loose and is tamperproof.

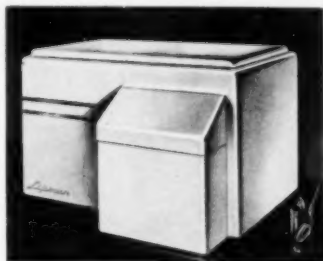
The silencers prevent noisy slamming of doors, prevent latch rattle and can be used for desks, dressers and other furniture to silence closing drawers or cabinet doors. They can also be used on doors of transportation vehicles. The Glynn-Johnson Corp., Dept. CUB, 4422 N. Ravenswood Ave., Chicago 40. (Key No. 687)

Automatic Ice Maker

The new Lipman Junior Ice Boy is a counter model ice tip machine. It is small in size and low in price and pro-

duces over 100 pounds of ice a day in any size desired. It is entirely automatic in operation, stops when storage of ice is at the capacity of 1.5 bushels, and starts again when the supply of ice is partially expended.

The ice forms on freezer tips located in the bottom of the freezer tank, is released during the defrost cycle and rises to the surface of the water where it is removed to the storage bin. A revolving paddle keeps the water in circulation and ensures fresh, clear freezing of the ice tips. The ice tips have no flat surfaces, do not stick together in storage, and are cylinder-shaped and round on both ends for greater cooling



power. Lipman Refrigeration, Div. of Yates-American, Dept. CUB, Beloit, Wis. (Key No. 688)

(Continued on page 86)

\$ave MONEY ON MOWING WITH ROSEMAN MOWERS

**Roseman Mowers
Pay For Themselves
in Faster, Smoother,
More Efficient
Mowing.**



ROSEMAN Mowers are your answer to high labor and maintenance costs. The new Roseman 3 gang rubber tired rear-drive mower will mow a given lawn area 2 to 3 times faster at far less cost than slower conventional power methods . . . keep lawn areas neat, perfectly trimmed . . . give top performance with true low cost trouble-free service.

Designed to fill the need of the progressive superintendent who realizes the inefficiency of using slower walk or wide type equipment with its high maintenance cost. Save the slow, expensive equipment for the close quarter work. Use Roseman gang mowers wherever possible. The savings are tremendous.



PARK CHALLENGER
Hollow-Roller-Drive Model

ROSEMAN Mowers, recognized as finest in the field, are used to develop championship golf turf. Available in rear-wheel drive models and hollow-roller-drive models in both pull type and lift type.

WIRE, WRITE or Phone for literature, prices and availability. Nationwide sales and service.

ROSEMAN MOWER CORPORATION
Phone UNIVERSITY 4-1842 EVANSTON, ILLINOIS

Monroe FOLDING TABLES

And Folding Chairs

Ask for Catalog

**The Original
"No Knee
Interference"
Folding
Banquet Table**

**DIRECT PRICES AND
DISCOUNTS TO
COLLEGES & SCHOOLS,
CHURCHES, SOCIETIES,
CLUBS, LODGES, etc.**

Monroe Tables Designed and Manufactured Exclusively By

THE Monroe COMPANY
77 CHURCH STREET COLFAX IOWA

Two Handsome School Auditoriums Seated with Heywood-Wakefield Comfort



ABOVE—Stockton Street School, East Orange, N. J.

It was planned in cooperation with Henry E. Kentopp, Superintendent and Paul V. Moody, Secretary of the Board of Education, by Emil A. Schmidlin, Architect, Newark. The installation of Heywood-Wakefield Model TC 705 chairs was carried out with the assistance of M. J. Franz, representative of Heywood-Wakefield Company, One Park Ave., New York.



BELOW—Corona Avenue School, Valley Stream, Long Island

Plans for the latest addition to the recently constructed Corona Avenue School included special provision for this 542-seat auditorium designed by Frederick P. Wiedersun, Architect, New York. The installation of Heywood-Wakefield Model TC 700 chairs was handled by Equipment and Furniture Company, Inc., New York, distributors for Heywood-Wakefield Company.



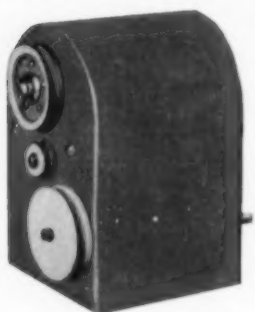
HERE ARE two examples of the current trend toward designing school auditoriums to serve as inviting focal points for neighborhood activities as well as school assemblies. Note the careful attention to good sight lines in the placing of seats which have been selected for their extra comfort. Write today for the new, fully illustrated catalogue of Heywood-Wakefield units for classroom and auditorium use. Heywood-Wakefield, School Furniture Division, Menominee, Michigan and Gardner, Massachusetts.



★ The ORIGINAL Tubular Steel School Furniture ★

WHAT'S NEW . . .

Tom Thumb Curtain Control



A new curtain control for light and medium weight curtains or draperies is being marketed under the name Tom Thumb. The new controller is a compact, miniature automatic operator for track spans up to about 16 feet in length and for curtains weighing up to 48 pounds. The new controls are equipped with a gear-motor unit enclosed in a sheet metal casing. Included in the unit are two control switches and a mounting bracket for installing the machine on the floor, wall, window-sill or on the track itself.

The Tom Thumb control can be started, stopped or reversed at any point

along the travel by flipping the switch to the desired position. It can be plugged into a conventional outlet. **Automatic Devices Co., Dept. CUB, 116 N. 8th St., Allentown, Pa. (Key No. 689)**

Food Scale

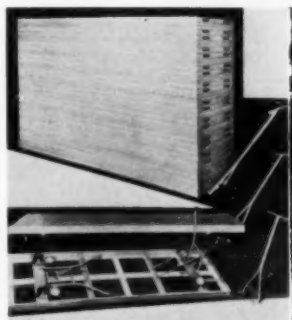
A new scale has been developed with one pound capacity, for food portion control. Sensitive and accurate, the scale has a clear dial and a food portion cost table. The dial turns easily by means of a knob to zero to rule out the weight of the container. The scale is finished in blue and white enamel with stainless steel platform. **Edward Don & Co., Dept. CUB, 2201 S. La Salle St., Chicago 16. (Key No. 690)**

Folding Tables

A new line of folding tables has been developed with a new feature for handling and storing. A truck table has been designed which serves as a regular table and on which additional folding tables can be stacked for transportation to or from a dining room or work room where the tables are set up for use. The truck table is equipped with large, sturdy casters that are automatically covered by steel cups when the table is in use. A handle attaches to the truck

table when it is to be used to transport the nested tables. After use the tables are stored on the truck table until needed.

The Glamah folding tables have a slightly indented top to protect against bumps and blows and as a nesting function. The tables are positive-locking with a lock that cannot slip even under heavy loads. The steel frame is solidly braced with plywood and legs are of tubular steel. Tops are available in Masonite, plywood or plastic. The tables are available in 30 by 96 or 30



by 72 inch sizes. **Foldcraft, Inc., Dept. CUB, 825 Glenwood Ave., Minneapolis 5, Minn. (Key No. 691)**

(Continued on page 88)

Extra Security looks like this



This is a Dudley Master Key. Each key is registered to the owner. Duplicates are supplied only after absolute proof of authority.

These Dudley Master Keys are hard to duplicate, too. Locksmiths can't make them on regular equipment.

You get extra security, and the finest in locker protection when you specify a Dudley Master-Keyed padlock or built-in lock. Write for Catalog Folder.



RD-2

Master-Keyed combination padlock

P-570

Master-Keyed combination padlock

DUDLEY LOCK CORPORATION

DEPT. 522 • CRYSTAL LAKE, ILLINOIS

PETERSON . . .
OUTSTANDING IN THE
FIELD OF
SCHOOL FURNITURE

LABORATORY
LIBRARY
VOCATIONAL
AND
HOME
MAKING



From coast to coast, leading schools recognize Peterson's reputation for quality furniture for laboratory, home making and library departments. What ever your requirements may be, call on Peterson's experts for an economical solution to your problems . . . No obligation is incurred.

Distributors located throughout the United States



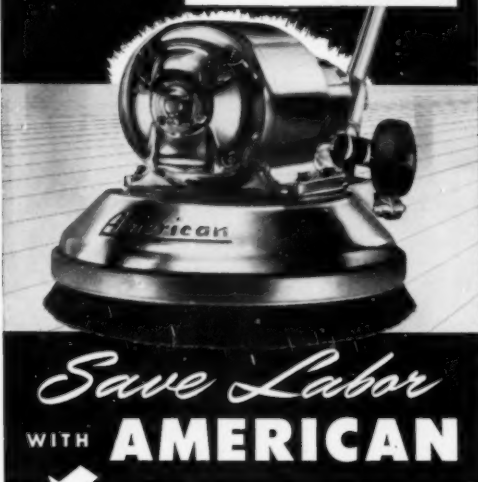
LEONARD PETERSON & CO., INC.

1228 FULLERTON AVENUE CHICAGO 14, ILLINOIS

Fight Grime

with Better FLOOR CARE!

STEEL WOOLING
POLISHING
BUFFING
SCRUBBING
DISC SANDING



Save Labor
WITH **AMERICAN**

One machine does ALL! This efficient American does all jobs in floor maintenance... saves time and labor, cuts costs... and increases the life of floors! Big power for scrubbing or polishing asphalt or rubber tile, terrazzo and all types of floors... removing gummy, sticky accumulations... sanding operations... steel wool operations, dry cleaning... and buffing or burnishing. All popular sizes. Also—you can reduce maintenance and cleaning costs on *any* floor with American Floor Finishes—cleaners, seals, finishes and waxes produced with nearly half-a-century's experience in floor problems.



NEW WATER PICK-UP MACHINE

Speed up the clean up! Use this new American to vacuum up dirty water after electric scrubbing your floors. Powerful motor... heavy duty squeegee leaves a clean dry path 29" wide... 15 gal. tank.

SEND COUPON!

The American Floor Surfacing Machine Co.
390 So. St. Clair St., Toledo 3, Ohio

☐ Send latest catalog on the following, without obligation:

☐ Maintenance Machine ☐ Floor Finishes
☐ Water Pick-Up Machine

Name

Street

City State



**Leak-Proof
Trouble-Proof
Shower Baths**

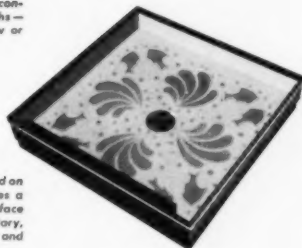
for New Building or Remodeling



Trouble-free service, plus the finest in bathing facilities are provided by Weisway Cabinet Showers. Guaranteed leakproof... exclusive porcelain enamel receptor with textured Foot-Grip, No-Slip floor is safe, sanitary, positively non-absorbent and easy to keep spotlessly clean. Easily installed without special treatment of building walls or floor.

Weisway quality ends the trouble and cost of frequent repairs and replacements. Weisways are sturdily built, of service-tested materials. For lasting satisfaction and service, specify Weisway Cabinet Showers. Write for detailed information.

Weisways are complete, self-contained, leak-proof shower baths—easily, quickly installed in new or existing buildings.



Vitreous porcelain enamel, fused on heavy enameling iron, provides a non-absorbent glass-hard surface easy to keep spotless and sanitary, as well as being comfortable and safe.

Weisway

CABINET SHOWERS

HENRY WEIS MFG. CO., INC., 539 Weisway Building, Elkhart, Ind.

WHAT'S NEW...

Tape Recorder



The new Model 400-A tape recorder for audio recording supersedes Model 400 and has all mechanical motions controlled electrically by push buttons. This permits full utilization of the Ampex instant start. It can be arranged for remote control and is available in either portable case or for rack mounting.

The new recorder is available with heads for either half-track or full-track recording. It can be operated at either 7½ or 15 ips, controlled by a speed selector switch. Ampex Electric Corp., Dept. CUB, Redwood City, Calif. (Key No. 692)

Stop-Clock

The Precision "Secron" second stop-clock is designed to have the accuracy of a stopwatch but the visibility of a household clock. This laboratory timer has a 36 hour movement controlled by two buttons on top, green for start and red for stop. A clear black on white dial is marked in seconds and a large sweep hand permits estimations to half a second. Total time elapsed up to 60 minutes is registered by a smaller integrating hand. The stop-clock is sturdy and inexpensive. Precision Scientific Co., Dept. CUB, 3737 W. Cortland St., Chicago 47. (Key No. 693)

Improved Scrubber-Polisher

New operational and structural innovations are offered in the new model Lincoln single disc scrubbing and polishing equipment. Self-retractable wheels situated at the base of the machine automatically raise with a slight tilt of the handle. The operator can roll the machine from one floor area to another with wheels in either up or down position. The handle can be lengthened or shortened to suit the operator and locks in any desired position.

The new models may be used with a combination tank and water feed connection unit attached to the handle and

connected with a pre-drilled opening in the base above the split-feed brush for wet scrubbing of floors and for shampooing rugs and carpeting. They also serve, without the tank, for applying wax and for polishing. The new type resilient rubber bumper has a molded rib at the back. It cannot slip off and protects furniture and baseboards. A new safety switch and a special high torque continuous duty motor with factory lubricated sealed ball bearings are other features of the new model which includes all interchangeable accessories needed for floor maintenance. Lincoln-Schlueter



Floor Machinery Co., Inc., Dept. CUB, 1250 W. Van Buren St., Chicago 7, (Key No. 694)

(Continued on page 90)



Cure Key Troubles with



- Any key instantly available — lost keys never a problem
- Neat, compact metal cabinet — easy to set up and operate
- Expansion unlimited
- Control by secret code

Attach to
your letter-
head and
mail today

P. O. MOORE, INC., Dept. C-10
300 Fourth Ave., New York 10, N. Y.
I would like to have, without obligation,
literature describing your product.

Name.....
Address.....
City, State.....

Restore VIM VIGOR VITALITY

Take a holiday from the pangs of arthritis and rheumatism at the Majestic hotel. Our famed mineral baths within our hotel are available to every guest. Courteous attendants are prepared to give soothing massage and treatment.

Come to

HOT SPRINGS

National Park
ARKANSAS

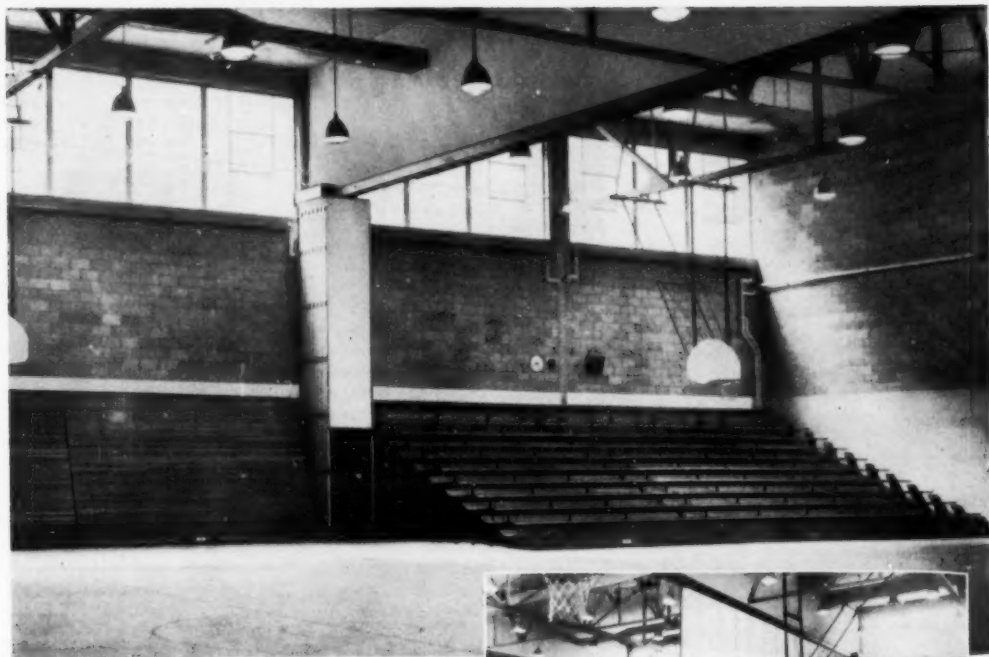
Come to the Majestic Hotel and let us help you get rid of your aches and pains in comfortable, friendly surroundings. Write today for further information.



Majestic
HOTEL

APARTMENTS—COTTAGES BATHS

flexible **GYMNASIUM PLANNING**

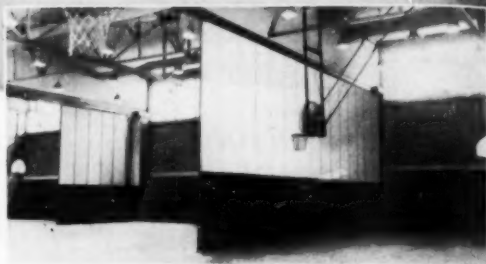


with



FOLDING GYMSEATS

FOLDING PARTITIONS



HORN, since 1909, manufacturers of HORN FOLDING PARTITIONS AND HORN FOLDING GYMSEATS, offer gym planning designed to utilize valuable gym space. Compact, efficient and engineered for years of trouble free operation, a HORN installation is factory supervised from the start to the finish. From coast to coast HORN FOLDING BLEACHERS AND GYMSEATS are filling the needs of flexible gym planning. Horn Representatives in your locality, can give you a complete appraisal of your requirements. For the finest in gym planning always specify and insist on HORN.

WRITE FOR THE **NEW** HORN CLASSROOM WARDROBE FOLDER . . .

Horn Brothers Company

SCHOOL EQUIPMENT DIVISION

ESTABLISHED 1909

FORT DODGE, IOWA, U. S. A.

MANUFACTURER OF FOLDING PARTITIONS, FOLDING GYM SEATS, FOLDING STAGES, CLASSROOM WARDROBES



WHAT'S NEW ...

Waste Disposal Unit



The Jeffery Garbrider is a new food waste disposal unit which can handle up to a ton of food waste an hour. The large feed hopper facilitates dumping of waste for sorting out silverware, glass, cans and other materials before feeding to grinder. Any material which the grinder will not handle is thrown out of the grinding area into a trap.

A heavy duty hammermill grinds all waste to small particles which are automatically flushed into the sewerage system. The operating principle is simple and the cutting element is of hardened

steel with all four corners ground so that they can be turned until all corners are worn. All parts are accessible for maintenance. Use of the Garbrider permits recovery of items which get into the waste by mistake and eliminates the use of waste cans and their maintenance problem. **Arnold Hughes Co., Dept. CUB, 765 Penobscot Bldg., Detroit 26, Mich. (Key No. 695)**

Hydrocarbon System

A catalytic process designed to prevent the formation of carbon deposits, gum and varnish in lubricants has been developed by Andre Barbier, physicist. The system eliminates the need for oil detergents for all engines: Diesel, gas, dual-fuel, in buses and in private automobiles, without the risk of emulsion or discoloration of the lubricants. **A. B. Hydrocarbon Systems, Dept. CUB, 2808 McKinney, Dallas 4, Texas. (Key No. 696)**

Upright Filing Cabinet

Maps, charts, drawings, art work, photographs, blueprints and other large pieces can be filed safely and conveniently, without wrinkles, creases or curled edges, in the new Draw-In-Dex upright filing cabinet. The cabinet has been carefully designed and engineered to

meet the problem of filing large sized sheets and will accommodate up to 1000 pieces. Each item hangs smoothly and an index file locates it instantly. All items are immediately accessible and any one can be removed without disturbing the others.

Drawings and other items are supported on suspension rods and easily attached to manila hangers. Newly developed aluminum hangers permit filing a large number of drawings or other items together. When the front panel is opened, any sheet can be immediately filed or removed. The cabinet stands four feet high, has steel top and sides



and is finished in gray, green or brown. **Berwin Trading Co., Dept. CUB, 15 Park Row, New York 38. (Key No. 697)**

(Continued on page 92)

DAV-SON BULLETIN & DIRECTORY BOARDS

a basic visual aid

A style and size for every need—to carry your important and timely messages. Quality built—to provide greatest reading ease—designed to fit into the most dignified surroundings—savings priced! DAV-SON can supply everything from the smallest desk name plate to the largest bulletin or directory. Write TODAY for full particulars and prices.

INFORMATION

Name Plates for Desks, Doors, or Corridors . . . choice of matching wood bases. Names may be changed at low cost.



CORK BACK BOARDS for pinning up announcements, posters, photographs, letters, etc. With or without locking glass doors. Illustrated is 24x36" board, wooden frame, walnut finish. \$9.20, f.o.b., Chicago.



DAV-SON Changeable Letter Bulletin Boards—in a variety of sizes and styles for indoor or outdoor use. With or without locking glass doors.

Write for complete information!



A.C. DAVENPORT & SON, INC.
ESTABLISHED 1932
311 N. DESPLAINES ST., CHICAGO 6, ILL.

Service

Sanibag

Offers Women the BETTER WAY to Dispose of Sanitary Napkins




WOMEN PREFER

the SANIBAG method of disposing of sanitary napkins. Once introduced to Sanibag, they accept it as the quickest, dirtiest and most discreet disposal method. Discomfort and personal distress can be among the greatest enemies of successful learning.

EASY ON PLUMBING

Sanibags reduce embarrassing toilet stoppages that too often occur in women's lavatories . . . in fact, Sanibag service costs so little that it pays for itself many times over in reduced plumbing bills and washroom maintenance. Used by hundreds of schools, dormitories and sororities.

Why not investigate the advantages of Sanibag now?

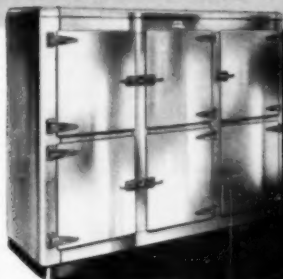
Send for free samples and complete information. When you write, please include your washroom supply merchant's name and address.



Buy from *Bair & Company* 400 SOUTH GREEN STREET CHICAGO 7, ILLINOIS



HERRICK STAINLESS STEEL REFRIGERATORS



*The
Ancestor
of
Refrigerators*

Circulation of purified air... ideal temperatures maintained throughout... balanced humidity... and more are important advantages of HERRICK refrigerators. These splendid units have proved their dependability. Let them serve you as they have so many thousands of others. Write for the name of your nearest supplier of HERRICK refrigerators.

Dept. C

HERRICK REFRIGERATOR CO., WATERLOO, IOWA
Commercial Refrigeration Division

*True
Deodorant*
LIQUID SOAP!



BALMASEPTIC

Combines the fine qualities and delightful scent of Dolge premium BALMA liquid soap with Hexachlorophene, the antiseptic agent used in modern surgical soaps. Regular washing with BALMASEPTIC not only cleans thoroughly but deposits on the skin a non-irritating film which reduces bacteria as much as 95%. Here's a true deodorant for shower as well as wash-up use, insuring "round-the-clock freshness."

Efficient dispensing equipment available. Ask your Dolge Service Man for demonstration.

Dependable
DOLGE
WESTPORT, CONNECTICUT

Vol. 12, No. 5, May 1952



One More Proof of Preference for *Universal* ROLL-A-WAY GYMNASIUM STANDS

All records show that *Universal* Roll-A-Way Gymnasium Stands are now preferred by more school executives, architects and contractors than ever before in history. Installation in the huge, modern Coffee High School is one more proof of this preference.

Engineered to fit individual specifications, *Universal* Roll-A-Way Stands are compact, yet roomy and comfortable, fit any space, and afford perfect visibility. When not in use, they may be rolled back to the walls, opening approximately 70% more floor space for regular gymnasium activities. Vertical filler boards enclose the entire under-structure from front view, add more rigidity to seat boards, make the complete stands even stronger and more substantial... yet do not interfere with spectators' leg room, permitting normal positions of feet drawn back under seats.

Write today for catalog, estimate and complete list of *Universal* installations. No obligation.



COFFEE HIGH SCHOOL, FLORENCE, ALABAMA — CHARLES H. MCCAULEY, ARCHITECT, BIRMINGHAM, ALABAMA

Universal
BLEACHER COMPANY

606 SOUTH NEIL STREET • CHAMPAIGN, ILLINOIS

Bleacher Experts for Over 30 Years

WHAT'S NEW ...

Product Literature

• **"Bausch & Lomb Stereomicroscopes"** are illustrated and described in a new 20 page catalog recently released by Bausch & Lomb Optical Co., 635 St. Paul St., Rochester 2, N. Y. Many uses are cited for the series 14 models whose three-dimensional feature provides a magnified image which is both stereoscopic and unreversed. Editorial type text is used to present the features of these instruments, including dustproof design, high quality optics, stand design and positive focusing. Each model is pictured and individually described. (Key No. 698)

• **"Cold Facts on Hot Air"** is the title of a folder giving statistics on the costs of various hand drying techniques. The figures are presented in chart form for easy analysis and are supplemented by a discussion of the use of Electric-Aire hand dryers in public washrooms and the resulting neatness, economy and reduced maintenance. The folder is available from Electric-Aire Engineering Corp., 209 W. Jackson Blvd., Chicago 6. (Key No. 699)

• A new booklet has been prepared by Bell & Howell Co., 7100 McCormick Rd., Chicago 45, entitled, **"Tips on Making Your Own Magnetic Sound Movie."** Information is presented on the ease and low cost of making a sound movie with the new Filmosound 202 magnetic projectors and Soundstripe magnetic sound track. The booklet serves as a manual for making educational, documentary or public relations films by any school, college, hospital or other institution. (Key No. 700)

• A new 8 page **Bulletin D651P** has been issued by The Superior Electric Co., Bristol, Conn., to familiarize the users of light dimming equipment with the new line of redesigned Packaged Powerstat Dimmers. The bulletin is complete with photographs, circuit diagrams, outline dimensions and descriptive material on the entire line of Packaged Powerstat Dimmers. (Key No. 701)

• **"Care and Service of Wear-Ever Aluminum Utensils"** is discussed in a folder issued by The Aluminum Cooking Utensil Co., New Kensington, Pa. Instructions are included for hand pot washing, for mechanical dishwashing machines and for care of Alumilite finish. A list of approved cleaners for aluminum is included. (Key No. 702)

• **Bulletin 752** has been issued by Mills Industries, Incorporated, 4100 Fullerton Ave., Chicago 39, to illustrate and describe its 1952 line of Counter Freezers. Both the new Hopper Model and the Pump Model with side cabinet are illustrated and described in the bulletin. (Key No. 703)

• A new bulk recipe book on **Magic Onions** has recently been published by the H. J. Heinz Co., P. O. Box 57, Pittsburgh 30, Pa. The booklet is in 6 by 9 inch form for reference filing with standard cookbooks and contains prize-winning recipes contributed by chefs, home economists and dietitians. (Key No. 704)

• The new **Radiant Projection Chart** contains simple, easily read tables and diagrams which supply information on correct screen sizes and models, lens focal lengths and projection distances for all types of projectors. Knowing projector and projection distance, the chart tells the proper screen size. Or with screen size established, the chart shows the proper projection distance. The chart serves as a valuable reference and guide for users of 8 and 16 mm. movie, slide, filmstrip and opaque projectors and is available from Radiant Mfg. Corp., 2627 W. Roosevelt Rd., Chicago 8. Diagrams on seating arrangements and audience size are also included. (Key No. 705)

• A recommended **Fire Resistance Test for Asphalt Tile** has recently been released by the Asphalt Tile Institute, 101 Park Ave., New York 17. The test was perfected by the Technical Research Committee of the Institute and is available from its offices. The test indicates that asphalt tile is one of the safest floorings from a fire prevention standpoint. (Key No. 706)

• A new catalog showing its complete line of metal and aluminum furniture for offices and institutions has been issued by Emeco Corp., Hanover, Pa. The new catalog gives detailed information on side chairs, arm chairs and swivel chairs and includes data on the new Emeco posture chair. (Key No. 707)

• **Barnstead's Water Demineralizer for Laboratories** is described in **Bulletin No. 124** recently released by Barnstead Still & Sterilizer Co., 124 Lanesville Terrace, Forest Hills, Boston 31, Mass. The demineralizer connects directly to any water supply and delivers the demineralized water in continuous flow. Its seven new features, including the new direct reading type meter, are fully covered in the new bulletin. (Key No. 708)

• A complete **Architects' and Engineers' Manual on Packaged Steam Generators** has been published by the Industrial Division of York-Shipley, Inc., York 4, Pa., manufacturer of Steam-Pak generators and York-Power industrial oil burners. The 208 page manual contains data required for laying out and writing specifications for boiler installations for applications requiring high pressure steam, low pressure steam or hot water. A limited number of the new manuals is available. (Key No. 709)

• **Catalog E-7-A, "Electrical Instruments for Instruction and Research,"** illustrates and describes the complete line of Weston electrical instruments available for educational needs. Issued by Weston Electrical Instrument Corp., 617 Frelinghuysen Ave., Newark 5, N. J., the booklet lists special teaching aids in addition to such instruments as moisture meters, laboratory thermometers and hydrometers, and indicating, recording and controlling instruments for pressure, time, temperature, light, speed and electrical values. A broad line of convenient multi-purpose test equipment widely used in industrial arts and vocational instruction is also included. (Key No. 710)

• How **Flexoprint** is used in preparing directories, catalogs, indexes, rosters and other listings where accuracy is essential is described in **Bulletin KD 610** issued by Remington Rand Inc., 315 Fourth Ave., New York 10. Flexoprint eliminates typesetting and proofreading and permits quick and easy changes simply by adding or removing typewritten cards, thus making it possible to keep lists up to date. (Key No. 711)

• The fundamentals of planning vertical transportation systems in institutions and other types of buildings are outlined and discussed in a new 28 page two-color booklet, **"Hints for Better Elevatoring,"** issued by Otis Elevator Co., 260 Eleventh Ave., New York 1. The booklet covers factors which must be considered in planning an elevator installation, and requirements of various building types. The text is profusely illustrated by photographs, tables, schematic drawings, traffic-flow graphs and full page line drawings. (Key No. 712)

Suppliers' News

Angelica Uniform Co., 1427 Olive St., St. Louis 3, Mo., manufacturer of institutional uniforms, announces the opening of enlarged branch offices and factory at 110 W. 11th St., Los Angeles 15, Calif. The Angelica retail store remains at 1101 S. Main St., Los Angeles 15.

Ceco Steel Products Corp., 5601 W. 26th St., Chicago 50, manufacturer of metal building products, announces the purchase of the business of **Sterling Windows, Inc.,** of New York City and New Castle, Ind., manufacturer of aluminum double-hung windows, screens and storm windows.

Libbey Glass, division of Owens-Illinois Glass Co., Toledo 1, Ohio, announces the opening of two new branch offices. The new office in **Pittsburgh, at 1913 Clark Bldg.,** will be under the management of **Robert C. Malone.** That in **Richmond, Va., at 918 Central National Bank Bldg.,** will be managed by **James A. Baugh.**

PRODUCT INFORMATION



Index to "What's New"

Pages 79-92

Key

- 674 Ditto, Incorporated
D-45 Office Duplicator
- 675 Huntington Laboratories, Inc.
Anti-Slip Cosmolite Wax
- 676 Wyandotte Chemicals Corp.
Film-Free Glass Suds
- 677 Allied Radio Corp.
Public Address Amplifier
- 678 General Electric Co.
Plastic Desk Top
- 679 American Floor Surfacing Machine Co.
Water Pick-Up Machine
- 680 Southern Equipment Co.
Electric Hot Food Tables
- 681 S. Gumpert Co., Inc.
Food Packaging
- 682 Barber-Colman Co.
Barcol Wardrobe-door
- 683 TelAutograph Corp.
'Instan-Form' Telescriber
- 684 Edison Electrical Co.
Improved Lok-Gyde
- 685 The Hoyer Corp.
Dupli-Kit
- 686 Newcomb Audio Products Co.
Portable Transcription Player

Key

- 687 The Glynn-Johnson Corp.
Rubber Door Silencers
- 688 Lipman Refrigeration
Automatic Ice Maker
- 689 Automatic Devices Co.
Tom Thumb Curtain Control
- 690 Edward Don & Co.
Food Portion Scale
- 691 Foldcraft, Incorporated
Glamah Folding Tables
- 692 Ampex Electric Corp.
Tape Recorder
- 693 Precision Scientific Co.
Stop-Clock
- 694 Lincoln-Schluter Floor Machinery
Co., Inc.
Improved Scrubber-Polisher
- 695 Arnold Hughes Co.
Jeffery Garbrider
- 696 A. B. Hydrocarbon Systems
Solatone Catalytic Equipment
- 697 Berwin Trading Co.
Upright Filing Cabinet
- 698 Bausch & Lomb Optical Co.
Stereomicroscope Catalog
- 699 Electric-Aire Engineering Corp.
"Cold Facts on Hot Air"

Key

- 700 Bell & Howell Co.
Magnetic Sound Movie Booklet
- 701 The Superior Electric Co.
Packaged Powerstat Dimmers
- 702 The Aluminum Cooking Utensil Co.
Care of Aluminum Utensils
- 703 Mills Industries, Incorporated
Bulletin 752
- 704 H. J. Heinz Co.
Magic Onions Bulk Recipes
- 705 Radiant Mfg. Corp.
Projection Chart
- 706 Asphalt Tile Institute
Fire Resistance Test
- 707 Emeco Corp.
Catalog
- 708 Barnstead Still & Sterilizer Co.
Bulletin No. 124
- 709 York-Shiplay, Inc.
Architects' Manual
- 710 Weston Electrical Instrument Corp.
"Electrical Instruments for Instruction"
- 711 Remington Rand Inc.
Flexoprint Bulletin KD 610
- 712 Otis Elevator Co.
"Hints for Better Elevating"

USE THIS
CARD



This card is detachable and is provided for your convenience in obtaining information on all items advertised in this issue. See reverse side.

FIRST CLASS
PERMIT NO. 136
SEC. 34.9 P. L. & R.
CHICAGO, ILL.

BUSINESS REPLY CARD

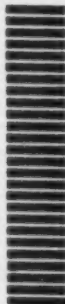
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COLLEGE AND UNIVERSITY BUSINESS

919 NORTH MICHIGAN AVENUE

CHICAGO 11, ILLINOIS



Index to Products Advertised

Key	Page	Key	Page	Key	Page
713 Adams & Westlake Company Aluminum Windows	11	731 Draper Shade Company, Luther O. Manual	76	750 Luminall Paints Paint Offer	64
714 American Chair Company School Furniture	76	732 Dudley Lock Corporation Locks	86	751 McDougall-Butler Company, Inc. Paints, Varnishes & Enamels.....	76
715 American Floor Surfacing Machine Co. Floor Maintenance	87	733 Eastman Kodak Company Photocopy Equipment	63	752 Majestic Hotel Hotel	88
716 American Seating Company School Furniture	16	734 Finnell System, Inc. Floor Maintenance	4th Cover	753 Maple Flooring Mfgs. Association Maple Flooring	2
717 American Structural Products Co. Glass Blocks	5	735 Hamilton Mfg. Company Laboratory Equipment	62	754 Michaels Art Bronze Company, Inc. Display Cases	58
718 Bausch & Lomb Optical Company Laboratory Microscopes	78	736 Herrick Refrigerator Company Refrigerators	91	755 Monroe Company, Inc., The Folding Furniture	84
719 Baier & Company Sanitary Napkin Disposal.....	90	737 Heywood-Wakefield Company School Furniture	85	756 Moore, Inc., P. O. Key Control	88
720 Bell & Howell Company Recording Projector	69	738 Hillyard Sales Companies Floor Maintenance	8	757 National Biscuit Company Institutional Food	59
721 Burroughs Adding Machine Company Accounting Machines	81	739 Hobart Mfg. Company Food Machines	3rd Cover	758 Patent Scaffolding Company, Inc. Aluminum Scaffolds	77
722 Celotex Corporation Acoustical Material	9	740 Holcomb Mfg. Company, J. I. Cleaning Materials	66	759 Peterson & Company, Leonard School Furniture	86
723 Chicago Hardware Foundry Company Hend or Hair Dryers	64	741 Horn Brothers Company Folding Gymseats & Partitions....	89	760 Powers Regulator Company Temperature & Humidity Control	55
724 Clarin Mfg. Company School Furniture	56	742 Hotpoint, Inc. Kitchen Equipment	2nd Cover	761 Presto Recording Corporation Recording Discs	53
725 Colorado Fuel & Iron Corporation, The (Wickwire Spencer Steel Div., The California Wire Cloth Corp.) Wire Fence	76	743 Huntington Laboratories, Inc. Gym Floor Finish	83	762 Radio Corporation of America Sound Systems	61
726 Crane Company Plumbing Equipment	12	744 International Business Machines Corporation Electric Typewriters	13	763 Rastetter & Sons Company, Louis School Furniture	68
727 Crotty Brothers, Inc. Food Service Management	73	745 Johns-Manville Acoustical Materials.....following page 16		764 Roddis Plywood Corporation Resurfacing Material	14
728 Davenport & Son, Inc., A. C. Bulletin & Directory Boards	90	746 Kellogg Company Institutional Foods	75	765 Roseman Mower Corporation Lawn Mowers	84
729 Dick Company, A. B. Duplicator Supplies	60	747 Laboratory Furniture Company, Inc. Laboratory Furniture	67	766 Simmons Company Institutional Furniture	71
730 Dolge Company, C. B. Liquid Soap	91	748 Libbey Glass Company Glassware	15	767 Sjostrom Company, John E. Library Furniture	80
		749 Ludman Corporation Awning Windows	57	768 Sloan Valve Company Flush Valves	1

May, 1952

Please ask the manufacturers, indicated by the numbers I have circled, to send further literature and information provided there is no charge or obligation.

WHAT'S NEW

674 675 676 677 678
679 680 681 682 683
684 685 686 687 688
689 690 691 692 693
694 695 696 697 698
699 700 701 702 703
704 705 706 707 708
709 710 711 712

ADVERTISEMENTS

713 714 715 716 717 718 719 720 721
722 723 724 725 726 727 728 729 730
731 732 733 734 735 736 737 738 739
740 741 742 743 744 745 746 747 748
749 750 751 752 753 754 755 756 757
758 759 760 761 762 763 764 765 766
767 768 769 770 771 772 773 774 775
776

771 Universal Bleacher Company Gymnasium Stands	91
772 Universal Equipment Company Institutional Furniture	7
773 Wakefield Brass Company, F. W. School Lighting	10
774 Wayne Iron Works Movable Grandstands	82
775 Weis Mfg. Company, Inc., Henry Cabinet Showers	87
776 Weston Electrical Instrument Corp. Electrical Instruments	77

NAME	TITLE
INSTITUTION	
ADDRESS	CITY ZONE STATE

THREE WAYS TO BUILD



M-M-M-Menus



*not
Menu\$-\$-\$-\$*

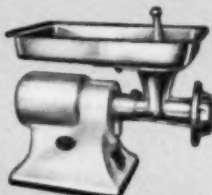
No use telling you there's a ceiling on your cost per serving. Or that between rising overhead, higher food costs, and shortages of food and labor, the margin is just about gone. Your *easy* way out is to cut standards. Your *best* way out is the Hobart way—to combine increased output with better foodstuff utilization. It's not new . . . but today, it's vital. Here's the plan.

1



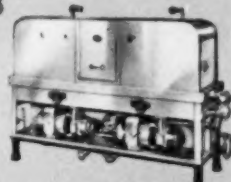
Improve Taste — Cut Waste. Utilize every ounce of good meat you buy with Hobart Tenderizers. Serve tenderized steaks, beef roulades, ham tenderettes, Steak Sabiouse—delicious specialties of all kinds—using sirloin strips and tips, spencer rolls, bottom rounds, pork butts, veal and lamb fronts, etc. Hobart Tenderizers knit and tenderize steaks with ease, speed and thoroughness unequalled in the steak machine field.

2



Speed Food Preparation—with Hobart Food Machines. Peelers, for instance, can peel up to 35 lbs. of potatoes in 1 to 3 minutes. Meat saws can cut 80% from hand cutting time. Choppers come in meat capacities up to 37 lbs. per minute. Slicers and food cutters speed production in kitchen and salad pantry alike. All Hobart products—*clean in design, clean in performance*—are ruggedly built, are on the job when you want them.

3



Mechanize the Dish Pantry. Work out a straight-through production line, with soiled dish table, racks, glasswashers, dish scrappers and dishwashers lined up for maximum output with minimum handling. Hobart makes dishwashers in all sizes, from under-counter models to 29-foot fully automatic, continuous-racking giants doing the entire job alone. All meet the same exacting sanitation standards.

That's it—your program for success today! Here at Hobart we make *all* the food and kitchen machines we've talked about, and more—most of them in a choice of sizes. Our products, our guarantee and our nation-wide service have more than half a century of experience behind them. There's Hobart representation near you—anxious to serve . . .
The Hobart Manufacturing Company, Troy, Ohio.



Trade Mark of
Quality for
over 50 years

Hobart Food Machines

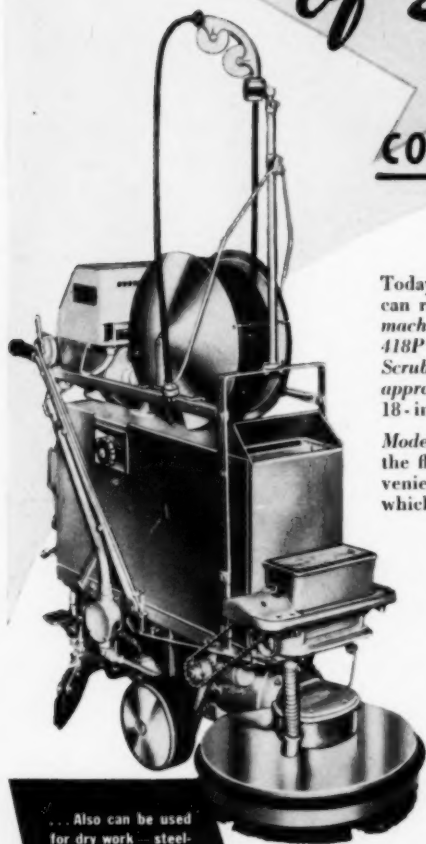
The World's Largest Manufacturer of Food, Kitchen and Dishwashing Machines

SMALL-AREA BUILDINGS...

Save $\frac{2}{3}$ of Every Hour
of Scrubbing Time

WITH A

COMBINATION SCRUBBER-VAC!



... Also can be used
for dry work - steel-
wooling, et cetera

Today, even buildings with but 2,000 to 15,000 sq. ft. of floor space can reap the labor-saving, cost-reducing benefits of combination-machine-scrubbing. Here's a *Combination Scrubber-Vac, Model 418P* at left, that's specially designed for such buildings. This *Scrubber-Vac*, which has an 18-inch brush ring, cleans floors in approximately one-third the time required with a conventional 18-inch machine and separate vac unit.

Model 418P applies the cleanser, scrubs, and picks up (damp-dries the floor) — *all in one operation!* Maintenance men like the convenience of working with this single unit... the thoroughness with which it cleans... and the features that make the machine simple to operate. It's *self-propelled*, and has a *positive clutch*. There are no switches to set for *fast or slow*—slight pressure of the hand on clutch lever adjusts speed to desired rate. The powerful vac performs efficiently and quietly. (Powder dispenser is optional.) Compactly built, the *418P* also serves advantageously in larger buildings for the care of floors in narrow aisles and congested areas.

Finnell makes *Scrubber-Vac Machines* for small, vast, and intermediate operations, and in *self-powered* as well as *electric* models. From this complete line, you can choose the size and model that's exactly right for your job (no need to *over-buy or under-buy*). It's also good to know that you can lease or purchase a *Scrubber-Vac*, and that *there's a Finnell man nearby* to help train your maintenance operators in the proper use of the machine and to make periodic check-ups. For demonstration, consultation, or literature, phone or write nearest *Finnell Branch* or *Finnell System, Inc.*, 4405 East Street, Elkhart, Indiana. Branch Offices in all principal cities of the United States and Canada.

Conserve Manpower with Completely Mechanized Scrubbing

FINNELL SYSTEM, INC.

Originators of Power Scrubbing and Polishing Machines



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IN ALL
PRINCIPAL
CITIES